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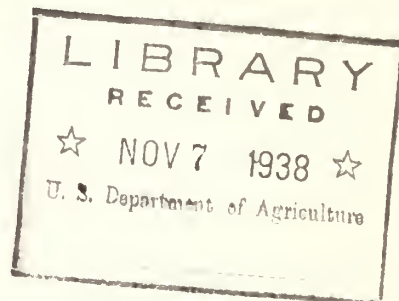
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UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics



THE
AGRICULTURAL OUTLOOK

1939

Prepared by
The Bureau of Agricultural Economics
Assisted by Representatives of
The Agricultural Adjustment Administration,
The Extension Service, the Bureau of Home Economics
And the State Agricultural Colleges and Extension Services.

Washington, D. C.
November 1938.

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THE AGRICULTURAL OUTLOOK FOR 1939

Prepared by the staff of the
Bureau of Agricultural Economics
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Washington, D. C., October 24-29, 1938

Reports Included

Demand	Potatoes
Agricultural Credit	Sweetpotatoes
Farm Labor, Equip. etc.	Truck Crops for Market
Farm Family Living	Cabbage
Cotton and Cottonseed	Celery
Wheat	Snap Beans
Tobacco	Tomatoes
Feed Crops and Livestock	Onions
Dairy Products	Watermelons
Poultry and Eggs (incl. Turkeys)	Truck Crops for Manufacture
Meat and Meat Animals	Fruits Summary
Hogs	Oranges
Beef Cattle	Grapefruit
Sheep, Lambs, and Wool	Lemons
Mohair	Apples
Horses and Mules	Peaches
Soybeans	Cherries
Flaxseed	Pears
Peanuts	Grapes
Rice	Strawberries
Dry Beans	Tree Nuts
Clover and Alfalfa Seed	

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Note release dates on first page of each report.

Washington, D. C.
November 1938

THE OUTLOOK FOR DEMAND AND PRICES IN 1939

Summary

The demand for agricultural products is expected to be somewhat more favorable in 1939 than in 1938, with considerable improvement in domestic conditions offsetting less favorable foreign prospects. The effects of this anticipated improvement in demand on prices will not be as obvious as in some other recovery periods because of large actual and prospective supplies of some farm products, and the fact that prices of some commodities have been prevented by Government measures from declining as far as they otherwise would.

Industrial activity and consumer incomes in the United States are expected to average substantially higher in 1939 than in 1938, but not as high as in 1937. Important industries which should contribute to this rise in production are automobiles, building, steel, textiles and miscellaneous consumers' goods. The major part of the improvement will represent increases in the output of goods bought by consumers, and of materials used in their production. The recovery in production of producers' goods, or of industrial plants and equipment, may be somewhat delayed due to relatively unfavorable situations in the important railroad, utility and private non-residential building industries. General economic conditions in the United States are mostly favorable to recovery. One exception is a relatively weak commodity price situation. Increased net contributions of the Federal Government to total purchasing power will serve as an important stimulus to business in 1939.

Foreign conditions which affect the exports and prices of United States farm products may be less favorable in 1939 than in 1938. General economic conditions abroad may show some improvement during 1939 if there are no further unfavorable political developments and if the expected recovery in the United States materializes, but competing foreign supplies will be much larger in 1939 than in 1938. A general stiffening of foreign trade restrictions against imports of our products is an additional unfavorable factor, although it would be offset to some extent by the conclusion of trade agreements with the United Kingdom and Canada.

The general level of wholesale prices in the United States probably will average somewhat higher in 1939 than in 1938. Higher prices for raw materials is expected to more than offset possible lower prices for some manufactured goods. A slight rise in prices of farm products as a whole may occur. The level of prices received by farmers has declined sharply from the high point reached in January 1937, and the disparity between prices received and prices paid by farmers for commodities has greatly increased. This disparity may be reduced somewhat in 1939.

Cash farm income from the sale of products and Government payments is down about 13 percent in 1938 from 1937, although it is still higher than in any year from 1930 to 1935. Farm income is expected to be higher in 1939 than in 1938, with the increase coming mainly from commodities which respond more quickly to increases in consumer purchasing power. An increase in marketings of this group of commodities is likely to more than offset the effect on income of any decline in prices which may accompany the increased supplies. For some non-perishable commodities,

large carry-over stocks will limit price advances which might occur as a result of improved domestic demand and reduced production, and income will be correspondingly affected.

DOMESTIC DEMAND

The domestic demand for farm products in 1939 will be considerably better than in 1938, according to present indications. This outlook is based upon prospective trends in industrial activity and consumer incomes.

Industrial production during 1939 probably will average materially higher than in 1938, but lower than in 1937. This improvement is expected to come mainly from a higher level of output of: (1) automobiles, (2) building, (3) steel, (4) textiles, and (5) miscellaneous consumers' goods.

Important industries in favorable position

During the past year the rate of automobile production has been considerably less than half the output in 1937. This was partly due to the decline in general business conditions and consumer incomes. Also, it reflected higher prices for automobiles, relatively few changes in mechanical features or body design, large stocks of used cars which interfered with trade-ins, and large sales of new cars in the preceding year. At the beginning of the selling season for 1939 models, the situation is much more favorable. Stocks of new cars have been reduced to unusually low levels, and the used car inventory situation also is greatly improved. Changes in styling are more pronounced, there have been some price reductions, and general business improvement will add to the purchasing power and confidence of potential buyers. Reduced output in 1938 has added to the number of potential new car purchasers. These developments make the outlook for automobiles in 1939 considerably better than it was for 1938. In view of the large numbers of relatively late model cars in the hands of consumers, however, and the fact that public purchasing power will still be relatively low, it is unlikely that automobile production in 1939 will approach the levels reached before the recession. An increase in output over 1938 of even 25 percent, however, would contribute much to improvement in other industries.

Although there was a drop in total building activity from 1937 to 1938, the volume of residential building actually increased during most of the year, and for the year as a whole was larger than in 1937. Building interests seem to be devoting much more attention to the relatively large market for medium and lower priced homes than in other recent years. These and other indications point to a continuance of the pickup in residential building through 1939, and there will also be a considerable increase in public construction. Even with non-residential private building remaining at a low level, at least a moderate rise in the total volume of building construction in 1939 over 1938 appears probable. Available reports indicate that manufacturers of and dealers in building supplies have reduced inventories considerably since a year earlier, and improvement in construction activity should be reflected fully in the output of industrial products.

The reduction in output of iron and steel from the summer of 1937 to the first half of 1938 was drastic, and has directly contributed more than any other item to the decline in industrial production as measured by the Federal Reserve

index. This decrease in steel production reflected partly the reduced output of finished products made from steel, but also in considerable degree the using up by manufacturers of their inventories of steel and steel parts. For example, automobile manufacturers were able to operate for practically the entire 1938 model year without making significant new purchases of steel. Many smaller users of steel were in somewhat similar positions. As a result, the monthly average output of steel fell to 26 percent of capacity in December 1937, from the peak of 90 percent reached in May of 1937. In the latter half of 1938, however, many miscellaneous small users of steel found it necessary to renew purchases in order to meet their current requirements, and automobile producers were forced back into the market for steel going into the 1939 models. In view of the great reduction of steel inventories which must have taken place during 1937-38, the prospects for increased requirements for 1939 automobiles, the general pickup which is in prospect for the output of miscellaneous steel products, and increased requirements for building construction and ship building, the average rate of production of steel in 1939 should be considerably higher than in 1938.

Cotton consumption declined from 136 percent of the 1923-25 average in June 1937 to 77 percent in April 1938, a decline greater than that in industrial production as a whole. During most of 1937 the production of textiles, like that of many other commodities, apparently was considerably in excess of current consumption, leading to increases in inventories. In 1938 the contrary has been true. In the first 9 months of 1938 textile production apparently was considerably less than wholesale and retail sales, and in the early fall stocks outside of manufacturers' hands were considerably lower than at the end of 1937. In view of this more favorable inventory situation and the expected improvement in the general textile production situation should be materially better in 1939 than in 1938 as a whole. The recovery in textiles from now on, however, is likely to be more gradual than in some other recovery periods which were accompanied by more rapidly advancing prices of cotton and other raw materials.

A number of other miscellaneous lines of consumers' goods also are expected to contribute to the recovery of industrial activity. Data relating to these industries are very meager, and reliance must be placed mainly upon scattered trade reports and upon inadequate data relating to sales and inventories. These data indicate that sales of many products to consumers throughout the recession have been at a considerably greater rate than manufacturers' output. For example, during the first half of 1938 the production of radios was about 40 percent under the corresponding period of 1937, whereas retail sales were down only about 16 percent, resulting in a big reduction in the record-breaking inventories on hand at the beginning of the year.

During the latter half of 1938 retail trade in general has approached the levels of a year earlier. Some reduction in the inventories of retailers and wholesalers has occurred in 1938, although it is probable that in view of the changed business conditions and buying policies these inventories are not as low in relation to sales as some of the more optimistic reports might indicate. In some lines of durable consumers' goods, such as electric household equipment and furniture, sales were off greatly in the first half of 1938, but are picking up some in the latter half of the year. Many potential consumers have been paying off installments on articles of this kind bought previously, and those whose incomes have not been seriously reduced will be in a better position to purchase such goods on credit in

1939 than they were in 1938. Taking all of these indications into account, it seems probable that the output of miscellaneous consumers' goods will show a material increase in 1939 over 1938.

Industries in less favorable position

There are a number of industries, however, in which conditions are not as favorable as in those discussed above. This is particularly true of those industries making producers' goods, sometimes called capital goods, or products which are used for the expansion and rehabilitation of industrial plants and equipment. Expenditures for such purposes frequently are referred to as "business spending". This contrasts with the situation for consumers' goods, the output of which depends upon the willingness and ability of final consumers to buy. Expansion or contraction of producers' goods depends upon the prospects for business profits, the availability of investment funds, and the relation between the capacity and prospective output of existing facilities, and relative costs with old and new equipment.

Unfavorable conditions exist in several industries which in the past have been important contributors to expansion in capital goods. Railroad earnings are very low, which makes it difficult for many railroads to obtain the necessary funds even for needed improvements. The volume of railway traffic is hardly likely to increase sufficiently in 1939 to result in a very large volume of buying of equipment and supplies, although there may be some increase over 1938 to meet immediate replacement requirements. Many utilities in 1937 were close to capacity output, but reduced demand accompanying the recession has contributed to the postponement of plant expansion and replacements. Considerable uncertainty regarding utility financing attends the progress of holding company reorganization plans. Nevertheless, some utilities recently have increased their outlays, and may be responsible for material expansion in capital expenditures in the latter part of 1939. The relation between prospective industrial output and capacity in other lines of industry is not such as to lead to any early large expansion in new industrial construction, although lower costs with new equipment may result in a considerable volume of replacements. There will be a substantial increase in the volume of public construction.

General economic conditions fairly favorable

Any evaluation of the prospects for business activity calls for consideration of general economic conditions as well as the situation of particular industries.

In line with expectations of last fall, industrial activity as a whole is experiencing considerable improvement in the last half of 1938. An upward movement of this extent itself tends to induce further improvement, unless broken by some combination of events such as halted the less pronounced pick-up in the spring of 1930 and of 1931. In the latter years, the cumulative effects of financial deflation, increasing unemployment and world economic collapse were more than sufficient to offset the upward push of other factors. In the present instance, private debts are much less burdensome and the speculative excesses in real estate and securities which preceded the 1929 collapse were not present in nearly the same degree before the 1937-38 recession. Bank failures now are relatively infrequent. There is little danger of a drastic contraction of credit such as resulted from these conditions in the several years following 1929. Bank reserves and deposits have been

built up to high levels during the past year. While unemployment increased in the first half of 1938, purchasing power of the unemployed now is partly maintained by relief and other expenditures of the Federal and State Governments. World economic conditions, while unfavorable in many respects, are not as much of a depressing factor as in the years immediately following 1929. Thus, certain unfavorable general conditions which operated to prevent the continuance of initial rises in industrial activity in 1930-31, when attempts at recovery were short lived, are not found in anything like the same degree in 1938-39.

An important factor which will influence purchasing power in 1939 is the prospective increase in net Government expenditures over 1938. Although general plans were made and money appropriated for public works before the fall of 1938, these expenditures really will not be well under way until the first part of 1939. The net result of this and other developments in Government finance point to an average excess of cash expenditures over receipts in 1939 fully equal to that for 1934 and 1935. This compares with the situation existing early in 1938, when cash receipts and expenditures of the Federal Government were almost equal.

A less favorable feature of the general situation is the limited improvement in commodity prices which has accompanied a rather marked business improvement in the fall of 1938. This has been due mainly to large supplies of some important agricultural products, and continued large stocks of industrial raw materials. Little really is known about the interaction of price structures for different groups of commodities, but low agricultural prices might act as a wet blanket on other prices. Expectations of general price advances contributing to forward buying by both consumers and dealers are one of the characteristic features of industrial recoveries, and the absence of this spur to buying might be a substantial damper on recovery. Nevertheless, the general level of wholesale prices will be supported by the industrial recovery and increased consumer purchasing power, and any weakness in prices relative to trends in other recovery periods is not expected to do more than slow down the rate of improvement.

Industrial activity not expected to reach 1936-37 level

Taking into account these general economic conditions, as well as the conditions existing in the more important individual industries, it appears that only the development of new factors in the situation can prevent the general level of industrial activity in 1939 from being considerably higher than in 1938. However, the large volume of advance buying and the enlargement of inventories which contributed to the high output of consumers' goods in 1936-37 is not likely to be present in the same degree in 1939, and the producers' goods industries cannot be expected to show as much activity following so soon after a severe slump. Hence, the improvement in 1939 is hardly likely to carry the average level of industrial activity for that year back to the high level which prevailed before the recession. The absence of excessive speculative elements in the situation, however, should contribute to a more sustained recovery in 1939 than in some other years such as 1933.

Consumer incomes up less than industrial activity

Changes in national income tend to lag slightly behind, and to be less marked than, changes in industrial activity. If these relationships continue to prevail in this recovery, the indicated improvement in business activity might be expected to result in a percentage increase in national income from 1938 to 1939 considerably less than that for industrial production. The purchasing power of the lower income groups of consumers, however, should rise faster than total income as a result of increases in employment and hours per worker.

Commodity conditions will vary

The domestic demand for many farm products, like consumer incomes, tends to lag behind changes in industrial activity. The demand for livestock, dairy and poultry products, and fruits and vegetables, is expected to rise with the improvement in consumer purchasing power, but not in proportion to the increase in industrial production. The effects of this increase in the demand, in a number of instances, will be obscured by increasing production. For several important farm products, which are relatively non-perishable and subject to storing speculative demand usually results in anticipation of future changes in consumer demand, and any pickup in industrial production might be expected to be reflected almost immediately in the demand for and prices of these commodities. In 1938-39, however, the effects of large production and stocks of some of these commodities, as well as of relatively weak foreign demand prospects, will tend to obscure the effects of increased demand arising from the improvement in domestic business. Moreover, the prices of several important commodities recently have been supported by Government loans or purchases above the levels which otherwise would have prevailed. These prices cannot be expected to reflect the improvement in demand until the effects of the latter are more than sufficient to equal the influence of the price-supporting measures. Taking all of these conditions into account, it is probable that the expected improvement in domestic business conditions in 1939 will not be reflected as obviously in the prices and incomes received by farmers as have similar changes in other years.

FOREIGN COMPETITION AND DEMAND

Foreign conditions which influence the exports and prices of United States farm products are expected to be somewhat less favorable in 1939 than in 1938. This conclusion is based upon a consideration of: (1) general economic conditions and purchasing power in those foreign countries which take the greater part of our agricultural export commodities; (2) foreign production and supplies of commodities competitive with our agricultural exports, both in those importing countries and in other foreign producing countries; and (3) foreign barriers to trade in our agricultural export commodities.

General economic conditions abroad may show some recovery during 1939 if the expected improvement in United States industrial activity materializes; but the foreign supply situation is less favorable than a year ago for exporting farm products from the United States. Continued military operations in the Orient, and the changed economic regime in certain areas there, are expected further to curtail our trade with Japan and China. A general stiffening of foreign trade restrictions against our imports is an additional unfavorable factor although it would be offset

to some extent by the conclusion of trade agreements with the United Kingdom and Canada.

Imports of foreign countries have become less dependent than formerly on general internal demand conditions because of the greatly increased control being exercised over all economic activity by most foreign governments. Many countries have greatly accelerated their efforts to reach the point where their economy can be independent of imports of essential agricultural commodities for a long period should the need arise. Where domestic production is at all feasible, it is being fostered as much as possible. Where adequate domestic production is not attainable, stocks are being increased. These measures are being supplemented in some countries by the active discouragement of consumption.

The most uncertain element in the foreign demand situation is the tense European political outlook. The present statement has been written on the assumption that the prevailing condition of armed peace will continue. A general war would entirely change the outlook. The short-time demand for some commodities would be increased while that for others would be curtailed. The long-time demand would depend upon a tremendous variety of unpredictable factors. On the other hand, should European policies be turned toward world economic reintegration, the long-time outlook for all commodities would be improved.

General foreign economic conditions

The recession in economic activity which has been under way since last fall in those important foreign industrial countries which are still able to import large amounts of our farm products appears to be leveling off, although some further decrease may occur. These countries probably will show some improvement before the end of 1939 as a result of the anticipated recovery in the United States.

The Economist index of business activity in the United Kingdom showed a rise for June which was lost in July and only partially regained in August. With the exception of cotton consumption, however, the components which indicate the level of industrial production continued to decline slightly in both June and July. The index of industrial production in Canada, the third most important foreign buyer of our agricultural products during 1937 (Japan, the second in importance, is discussed below), turned up very slightly in July. The prospects for further advance depend to a great degree on conditions in the United States, since the Canadian economy is more closely geared to our own than is the case for any other important foreign market for our agricultural products excepting Cuba. In France, industrial activity continues at a low level and the outlook is extremely uncertain. The situation is complicated by large-scale labor unrest and business timidity.

Other indications of economic conditions in this group of countries show similar uncertainties. In the Netherlands, an index based on net imports of raw materials rose slightly in the first part of the year but fell during April and May. In Belgium, industrial production rose in May and June but dropped in July below its previous low point for the year. Although conditions in Cuba showed no improvement during the month of August, sugar prices were relatively firm.

Factors tending toward further decline in economic activity in these less controlled countries include the low purchasing power of the raw-material exporting

countries, the continuation of military operations in the Orient, and the flight of capital from Western Europe to the United States. A factor of uncertain influence is the continuation of feverish military preparation, since on the one hand it stimulates industry, but on the other it leads to the further control of other than war-material imports and to governmental financial difficulties. In spite of these factors, it is possible that the anticipated improvement in United States economic conditions, through its influence on conditions in raw material producing countries, may eventually reverse the downward movement of industrial production in these countries. Their prices and currencies are in better alignment than at any time since before the financial crisis in the summer of 1931. Some countries, less important as purchasers of United States farm exports, but of influence in the general situation, have not experienced an important measure of recession from 1937 levels. Emergency programs of government spending are ready in most countries and, in general, budgetary policies are under much more flexible control than has been the case at the outset of previous recessions. Hence, resistance will be offered to prolonged depression and quick advantage would probably be taken of any substantial stimulation to recovery.

many of

In the early fall of 1938 the currencies of these countries led by the pound sterling, have fallen to low levels in terms of the dollar. Although the tendency would probably be reversed temporarily by a distinct easing of the present European political tension, the general weakness is likely to continue in 1939. This prospect is an unfavorable factor in the general outlook for foreign markets for United States farm products.

Conditions in both Japan and Germany are now under practically complete Government control; so that the ordinary indications of future demand are of little value in appraising the outlook. Although industrial production is advancing consumer standards of living are not rising proportionately. Final consumption of all types is being reduced both by artificially created scarcity and by official campaigns identifying frugal living with patriotism. The limited exchange available for raw material imports is being rationed as between industries. Regardless of cost, purchases of required imports are made as far as possible in countries with which military or political alliances have been formed or are sought. Under these circumstances, it is very unlikely that we shall be able to regain during the coming year the markets which we have lost in these countries.

Foreign production and supplies

The situation in regard to competitive supplies of agricultural products in foreign countries this year is less favorable than last year for most of our export commodities, including grains, cotton, and tobacco. Large foreign crops will result in large stocks being carried over into the next season.

The outlook is for particularly large foreign grain supplies. Europe as a whole is harvesting larger grain and root crops than in any recent year. In Canada the exportable wheat surplus is the largest since 1932. Plantings of grain in the Southern Hemisphere appear to be above those of a year ago. As short foreign supplies a year ago were a factor in making United States grain exports during 1937-38 the highest since the series of unfavorable production years which began in 1934, there will probably be a decline in this trade during 1939. In the case of lard, it is anticipated that our increased exportable supplies will continue to

recover ground lost in foreign markets to the vegetable and marine oils which have been filling much of the fat and oil demand during the recent period of low lard production in the United States. While foreign cotton production is expected to be lower than last year, stocks are unusually large and the net position is expected to be more unfavorable to United States cotton exports than during the past season. Stocks of tobacco abroad are above average. This is especially true of United Kingdom stocks of Canadian and Indian leaf.

Fruit is a conspicuous exception. April and May frosts throughout most of Europe have resulted in a very small crop. Hence, the foreign fruit supply situation during the current marketing season is expected to be favorable to United States exports in spite of unchanged or even decreased foreign consumption. Conditions following the 1939 fruit harvest, however, may not be as favorable for United States exports as those now prevailing.

International trade and trade barriers

Total world trade for the second quarter of 1938 was lower than that for the second quarter of 1937 by 13 percent in quantity and more than 17 percent in value. Much of the decline was due to decreased imports of raw materials and grains into the United States. While this decline of United States imports was not the only factor in the situation, it is possible that its reversal as a result of a revival of industrial activity in the United States might have sufficient influence to cause a rise in world trade indexes before the end of 1939.

An unfavorable factor in the situation is a general tightening of trade barriers even in the less controlled countries. Just as these restrictions were being relaxed a year ago under the influence of increasing industrial activity and rising prices, they are now being stiffened in response to the effects of decreasing activity and declining prices. It is significant that the Oslo convention for the reciprocal easing of restrictions on trade between the Scandinavian countries, Belgium, and the Netherlands was not renewed at its expiration on June 30. In the United Kingdom, the chief foreign outlet for our agricultural products, indications are that schemes for increasing domestic agricultural production will be continued if not actually expanded. Most of these schemes include the rigid quantitative control of imported supplies. The leading United States agricultural exports affected by such schemes are wheat, hops, barley, and pork products. The import quota for pork limits imports from the United States to a fixed percentage of the total which, if the quota is the same in 1939 as in 1938, will be less than the share which we would probably otherwise be able to supply. On the other hand, progress has been made in negotiating trade agreements with the United Kingdom and Canada which are expected to involve significant reductions in the trade barriers affecting our agricultural products.

PRICES

The level of wholesale prices in the United States probably will average somewhat higher in 1939 than in 1938. Higher prices of raw materials are likely to more than offset possible lower prices of some manufactured goods. A slight rise in prices of farm products as a whole may occur.

Varying trends for different groups of commodities

Wholesale prices of all major groups of commodities have receded since September 1937. Prices have declined most for farm products, foods, hides and leather, and textiles; and have declined least for fuel and lighting products, metals and metal products, chemicals and drugs, house furnishings, building materials, and miscellaneous products.

Higher prices in 1939 than in 1938 are probable for raw materials, building materials, clothing, several crops, and some other products. The decline in prices of building materials in the last year appears to have been halted. Prospects for an improvement in residential building and increased public works construction, along with reduced inventories and anticipated increases in production costs, are expected to result in some increase in prices of building materials in the coming year.

Lower prices seem likely in the coming year for some iron and steel products, and some livestock and foods. The general reduction in steel prices in 1938 should permit of some lowering in prices of finished steel and iron products. Some reduction has already been announced in prices of 1939 model automobiles. The sharp curtailment in sales of farm machinery in 1938 following the marked increase in prices since 1933 and the reduction of buying power of farmers in 1938 have led to reports in trade circles that reductions in some farm machinery prices are probable. Moreover, smaller tractors and combines are being placed on the market at prices much below those that have recently prevailed for larger sizes of these machines. However, declines in prices of these products are expected to be more than offset by increases in prices of other products and to result in a somewhat higher level of wholesale prices in 1939 than in 1938.

Prices in foreign countries

During 1938 the value of the dollar has risen in terms of the currencies of France, China, Mexico, several South American countries, and more recently in relation to the English pound and certain other currencies. The decline in the value of these foreign currencies will tend to increase prices of our products to foreign importers in terms of their moneys. Further depreciation in foreign currencies would tend to increase foreign wholesale prices. However, unless there is a pickup in foreign industrial production or substantial further declines in foreign exchange rates, there seems little likelihood of any general increase in wholesale prices in the major foreign countries. Weakness in foreign exchange would tend also to depress prices in the United States. Distribution of the effects as between domestic and foreign prices would depend upon many other conditions in the commodity markets here and abroad.

The general level of wholesale prices in the major foreign countries, like the trend of prices in the United States, has been relatively stable in the first 8 months of 1938. The combined index of wholesale prices in 9 foreign countries that have a considerable influence on the foreign demand for our farm products has fluctuated little since March 1937, although the trend in 1938 has been slightly downward.

Prices in different countries have shown conflicting tendencies in 1938. Wholesale prices in England, Canada, Belgium, Poland, and the Netherlands, have been gradually weakening since January, whereas prices in Japan have risen despite the wide range of price-control regulations. In France, wholesale prices reached a new high level in July, tapering off gradually thereafter. Prices in Italy and Germany, according to the official indexes, have been relatively stable in 1938.

Prices received and paid by farmers

The general level of prices received by farmers in the United States has declined sharply from the high point reached in January 1937, as a result of the substantial decrease in consumer purchasing power and increases in supplies of some important commodities. The index of farm prices declined 27 points in 1937 and another 12 points in the first half of 1938. By May 1938, this index was down to 92 percent of the pre-war level and has been fairly steady since then. Although all groups of farm products shared in this downward trend, the decline was most pronounced in prices of crops, especially grains and cotton, and less pronounced in prices of livestock and livestock products. In the coming year this trend is likely to be reversed, with an improvement in crop prices relative to livestock prices. Higher prices for some crops are expected to more than offset any declines that may occur in some of the livestock groups, and to result in some increase in farm prices in 1939.

Prices paid by farmers for commodities have been on a downward trend since June 1937. The greatest declines have occurred for feeds and foods -- the two most important groups of commodities purchased by farmers -- and in seed prices. Prices of clothing, building materials, furniture and furnishings declined moderately, whereas prices of fertilizers, equipment and supplies were practically unchanged. Farm machinery and automobiles increased. These prices and prices of some foods may be lower in the coming year, but increases from present levels are likely in prices of building materials and some clothing items.

The ratio of prices received to prices paid by farmers declined a little further in the first 9 months of 1938, after a sharp decline in 1937. Prices received by farmers are likely to increase sufficiently to bring about some increase above the present level in the ratio of prices received to prices paid.

FARM INCOME

With considerable improvement in industrial activity and national income in prospect, it is probable that cash income from farm marketings will be appreciably higher in 1939 than in 1938. Income from Government payments in 1939 also is expected to exceed that in 1938.

Farm income reduced in 1938

The income of farmers from marketings of farm products and from Government payments has been estimated at about 7,500,000,000 dollars for the calendar year 1938, compared with 8,600,000,000 dollars for 1937. This 1938 income is about 13 percent lower than that of 1937 and 6 percent smaller than in 1936. However, it is higher than in any year between 1930 and 1936.

The decline in income from farm marketings in 1938 is more pronounced in the case of crops than it is in the case of livestock and livestock products. During the first half of 1938, marketings of crops were somewhat larger than a year earlier, but this was more than offset by the marked decline in prices, and income from crops during that period was 20 percent below a year ago. Marketings of cotton and fruit crops during the latter half of the year will be somewhat smaller than in 1937, but marketings of wheat and other grains will be larger. Because of the reduction in prospective sales of many crops and the marked decline in prices, farm income from crops is expected to continue somewhat below a year earlier through the remainder of 1938.

Marketings of livestock and livestock products in 1938 are somewhat larger than in 1937 due largely to the increase in output of dairy products and the increased volume of hog marketings. While prices of nearly all livestock and livestock products are somewhat lower than a year earlier, this has been partly offset by the larger volume of sales.

Improvement in 1939 to vary by commodities

The improvement in farm income in 1939 is likely to be more noticeable in those commodities which enter most directly into consumption. Production of livestock and livestock products is expected to continue upward and be larger in 1939 than in 1938, but with the upward trend in consumer incomes it is likely that these larger supplies will result in more farm income than in 1938. Fruit and vegetable crops in 1939 may also be larger than in 1938, and the income from these products should be higher.

Income from the less perishable crops which can be carried over from season to season, such as grains, cotton, and tobacco will be influenced somewhat by the large carry-overs now in prospect at the end of the present crop marketing season, which may prevent the improvement in industrial activity and consumer incomes from being fully reflected in the income from these commodities.

Net income from farming

The moderate decline in prices of commodities and services used in production together with some curtailment in purchases, has enabled farmers to reduce their total farm production expenses slightly in 1938. However, the decline in farmers' expenditures for farm production from 1937 to 1938 has probably been much less pronounced than the decline in farm income, and net cash income available to farm operators after deducting production expenses is considerably lower in 1938 than in 1937. However, in 1939, it is likely that the increase in total cash income from farm marketings and from Government payments will be accompanied by little change in farm production expenses from those of 1938, and the net cash income of farm operators will probably be materially higher in 1939.

Release Date
October 31, PM

THE CREDIT OUTLOOK FOR 1939

Summary

The volume of short-term credit used by farmers is expected to be greater in 1939 than in 1938. Factors primarily responsible for the increase will be the loans offered by the Commodity Credit Corporation on cotton, corn, and wheat, substantial carry-overs of debt from 1938 by cotton, wheat, and vegetable growers, and increased demand for livestock financing.

Ample short-term credit will be available for meeting all demands by farmers of good credit standing and the Farm Security Administration has an increased appropriation for making loans to rehabilitate farmers who cannot obtain credit from the customary sources. Plentiful supplies of credit for cooperative purposes are also available.

The demand for farm-mortgage credit is expected to continue small in 1939. The peak of the emergency refinancing demand is over, and no substantial change is expected in the amount of credit required for land transfers.

Commercial banks and life-insurance companies are now lending on farm mortgages much more freely than even two years ago. Funds available for such loans from both Federal and private agencies are abundant and increased amounts are available for tenant-purchase loans to be made by the Farm Security Administration under the Bankhead-Jones Farm Tenant Act. The Federal Housing Administration is now authorized to insure mortgage loans on farm real estate under certain conditions.

Farmers' requirements for credit will be moderated by increased payments in 1939 under the Agricultural Adjustment Administration farm program.

Increased Use of Short-Term Credit is Expected for 1939

The volume of short-term credit used by farmers is expected to be greater in 1939 than in 1938. Increases are anticipated principally in loans for the storage and marketing of cotton, corn, and wheat, as it seems certain that many farmers will take advantage of the loans offered by the Commodity Credit Corporation on the 1938 crops of these staples and large amounts of the loans made on the 1937 crops of cotton and corn remain outstanding. There are likely to be increases in the credits employed for the maintenance and purchase of livestock in those parts of range area and the western Corn Belt where feed supplies are abundant. Cotton, wheat, and vegetable growers will have substantial carry-overs of debt in 1939, owing to the low prices currently prevailing, and may have to depend to a larger extent than in 1938 on borrowing to meet their production expenses.

Short-Term Credit Increased in 1938

Outstanding personal and collateral loans to farmers held by commercial banks and short-term loans held by units of the Farm Credit Administration increased during the year ended June 30, 1938 from \$956,700,000 to \$1,167,700,000, or more than 22 percent (table 1). Most of this increase was accounted for by a growth of \$199,300,000, or 27 percent, in the loans held by commercial banks. Loans held by units of the Farm Credit Administration increased \$11,700,000, or 5 percent.

The personal and collateral loans to farmers held by commercial banks increased more than 20 percent in all sections of the country except the Middle Atlantic States (increase 8 percent), the Mountain States (increase 11 percent), and the Pacific States (increase 14 percent). Exceptionally large increases were reported in southern States. Of the nine States in the country as a whole which reported increases in excess of 60 percent, seven were in the South. It seems probable that a factor of dominant importance in causing bank loans in these States to increase was loans for storage of the immense cotton crop of 1937. This is suggested by the fact that on August 31, 1938 commercial banks held approximately \$109,000,000 of Commodity Credit Corporation loans on cotton, as compared with no loans of this type a year earlier.

Table 1.- Outstanding short-term loans to farmers

Month and year	Commercial banks 1/	Farm Credit Administration 2/	Total
	1,000 dollars	1,000 dollars	1,000 dollars
December 31, 1920	3,869,891	....	3,869,891
December 31, 1923	2,943,818	9,105	2,952,923
June 30, 1931	1,936,360	79,206	2,015,566
December 31, 1934	807,613	203,626	1,011,239
June 30, 1936	661,606	229,506	891,112
December 31, 1936	593,614	171,517	765,131
June 30, 1937	726,400	230,302	956,702
December 31, 1937	788,351	194,225	982,576
June 30, 1938	925,705	242,009	1,167,714

1/ This series includes only personal and collateral loans to farmers and excludes loans on farm real estate.

2/ This series includes short-term loans similar in character to the personal and collateral loans made by commercial banks. It excludes emergency crop production and drought relief loans. Types of loans included are regional agricultural credit corporation loans, and production-credit association loans and Federal intermediate credit bank loans to, and discounts for "other financing institutions."

Of the short-term loans held by units of the Farm Credit Administration (excluding drought relief and emergency crop production loans) only those of the production credit associations increased during the year ended June 30, 1938.

Outstanding loans of the regional agricultural credit corporations (in liquidation) decreased in all Farm Credit Districts. There were also decreases in Federal intermediate credit bank discounts for other agricultural credit and livestock loan companies in five of the 12 districts, a notable increase occurring only in the Baltimore district. The loans of production credit associations, however, increased in all districts, and for the entire country were 16 percent greater on June 30, 1938 than a year earlier. Increases averaged largest in Iowa and the eastern Corn Belt States. Most of the southern States, in which exceptionally large increases of commercial bank loans to farmers occurred, had slightly less-than-average increases in production credit association loans.

Disbursements on loans made by the Commodity Credit Corporation during the late months of 1937 and through August 31, 1938 increased greatly over the amounts disbursed during the corresponding period a year earlier. Advances on the 1937 cotton crop amounted to \$125,200,000, as compared with no loans on the 1936 cotton crop; advances on the 1937 corn crop amounted to \$9,600,000 as compared with \$46,000 on the 1936 corn crop; and there were \$7,700,000 of advances during the first 8 months of 1938 on turpentine and rosin as compared with no advances of this type during 1937. In addition, approximately \$25,000,000 were advanced on miscellaneous commodities, including butter, peanuts, prunes, raisins, wool and mohair, wheat, dates, and figs, which had not previously served as a basis for loans by the Commodity Credit Corporation.

In contrast to the increased volume of short-term credit made available to acceptable risks by commercial banks and certain units of the Farm Credit Administration, and the increased volume of loans made by the Commodity Credit Corporation on stored commodities, there was a reduction during the fiscal year 1937-38 in new loans made from special appropriations for rehabilitation and emergency relief purposes. Emergency crop production loans administered by the Farm Credit Administration amounted to only \$21,600,000 during 1937-38 as against \$33,000,000 during 1936-37. Loans for rehabilitation and emergency purposes, made by the Farm Security Administration, however, amounted to \$67,300,000 during both 1937-38 and the preceding year. Additional assistance to distressed farmers and their families has often been extended in the form of grants by the Farm Security Administration. The amounts of such grants were \$23,100,000 during 1937-38 and \$34,500,000 during 1936-37.

Ample Short-Term Credit will be Available in 1939

Ample facilities are available for meeting all anticipated requirements for short-term credit during 1939 at interest rates differing little, if any, from those prevailing during 1938.

Though the deposits of country banks are now moderately lower than a year ago, owing in considerable part to the decline in farm income, country banks in all parts of the United States have large unutilized reserves and readily marketable investments that can be sold to provide additional funds if such are needed (table 2). The desire of bankers to employ their lending power more fully, and the recent liberalization of bank supervisory requirements, assure that ample bank credit will be available during 1939 to farmers who are acceptable credit risks.

Production credit associations, agricultural credit corporations, and livestock loan companies, all of which extend short-term credit to farmers, likewise are in position to furnish a plentiful supply of agricultural credit during 1939. Federal intermediate credit bank debentures, the principal source of loan funds for these institutions, continue to have a ready market at low rates of interest.

Table 2.- Demand deposits of country banks 1/
(1924-29 monthly average = 100)

Year	: 20 leading : : agricultural : : States : : <u>Percent</u> :	Cotton : growing : States : <u>Percent</u> :	Corn : Belt : States : <u>Percent</u> :	: Range States : : <u>Percent</u> :
Monthly average 1929	: 99.0 :	: 93.0 :	: 97.2 :	: 103.6 :
" " 1932	: 57.3 :	: 41.8 :	: 59.6 :	: 54.7 :
" " 1933	: 48.6 :	: 41.4 :	: 48.8 :	: 46.8 :
" " 1934	: 66.0 :	: 59.1 :	: 70.7 :	: 63.9 :
" " 1935 <u>2/</u>	: 77.5 :	: 71.2 :	: 85.3 :	: 77.1 :
" " 1936	: 97.6 :	: 94.7 :	: 106.9 :	: 101.3 :
" " 1937	: 105.7 :	: 105.0 :	: 115.4 :	: 110.4 :
July 1937	: 105.4 :	: 96.9 :	: 116.7 :	: 107.9 :
July 1938	: 100.1 :	: 94.0 :	: 111.1 :	: 102.9 :

1/ Deposits of member banks of the Federal Reserve System located in places of less than 15,000 population.

2/ Average of first 7 months.

Commodity Credit Corporation loans have been made available on the 1938 cotton and wheat crops. The 1938 wheat loans average about 59 cents per bushel with the loans to individual farmers varying according to location, freight and handling charges, and the grade of wheat. Cotton loans are being made at the rate of 8.3 cents per pound on 7/8-inch Middling cotton with rates for other grades and staples ranging from 5.3 cents to 10.75 cents per pound. Loans on the 1938 corn crop will be required under the terms of the Agricultural Adjustment Act of 1938, if the November crop estimate for corn is in excess of a normal year's domestic consumption and exports or if the farm price on November 15 or at any time thereafter during the 1938-39 corn-marketing year is below 75 percent of the parity price.

The volume of funds available to low-income farmers through the Farm Security Administration's loan program will be about \$40,000,000 greater during the fiscal year 1938-39 than during each of the two preceding years. The current appropriation of \$110,000,000 provides for rehabilitation loans, loans for meeting temporary emergencies, and loans to facilitate farm community and cooperative enterprises. An effort will be made to curtail emergency loans and to use this appropriation mainly for standard rehabilitation loans.

Standard rehabilitation loans carry a 5 percent interest rate and are repayable within 1 to 5 years. Such loans are made to farm owners, tenants, and sharecroppers who cannot obtain credit from any other source, with the understanding that borrowers will follow approved farming practices. Farm laborers who have arranged to operate farms are also eligible. Loans of this type are not made for the purpose of refinancing real estate indebtedness or of aiding in the purchase of farm real estate.

Short-Term Credit Requirements of Farmers are Moderated by
Agricultural Adjustment Administration Payments

Requirements that otherwise would have to be met by borrowing will be satisfied in part by conservation and price-adjustment payments to farmers under the Agricultural Adjustment Administration Farm Program.

Payments to farmers under the 1938 Agricultural Conservation Program are expected to exceed \$450,000,000 as compared with approximately \$330,000,000 under the 1937 program. The first payments under the 1938 program reached farmers during October 1938 and it is expected that payments will be made in large volume during December, January, February, and March. It is estimated that the payments will be made to about 5,000,000 farmers (including landlords, tenants, and sharecroppers) as compared with about 4,000,000 farmers who qualified under the 1936 and 1937 programs.

In addition to conservation payments, cotton farmers will receive payments approximating \$130,000,000 under the 1937 cotton-price-adjustment payment plan. The first of these payments was made during the latter part of August 1938, and it is expected that practically all will be made by December 31, 1938.

Payments will also be made under the Sugar Act of 1937 to producers of sugar beets and sugarcane on their 1938 crop. Payments to sugar beet producers probably will total about \$20,000,000 and will be made largely during February, March, and April of 1939. Payments to sugarcane producers in Louisiana and Florida probably will total about \$6,000,000 and will be made largely during April, May, and June of 1939.

For farmers who plant within their 1939 acreage allotments, Congress appropriated \$212,000,000 for price-adjustment payments on cotton, corn (in the commercial corn area), wheat, rice, and tobacco. The first of these payments will be made to the winter wheat producers, probably during the early months of 1939. Payments to producers of cotton, corn, spring wheat, rice, and tobacco will be made during the summer and fall of 1939 following the checking of compliance with the 1939 acreage allotments. These price-adjustment payments will be in addition to the regular payments to be made somewhat later under the 1939 Agricultural Conservation Program.

Loans of Federal Agencies for Cooperative Purposes
are Increasing

Loans for cooperative purposes are made by several Federal agencies. Through the Central Bank for Cooperatives and 12 district Banks for Cooperatives the Farm Credit Administration makes available to cooperative associations the following types of loans: commodity loans, on the security of staple farm products and farm supplies, bearing currently an interest rate of 2 percent; operating capital loans to supplement the working capital of cooperative associations, at an interest rate of 3 percent; and facility loans for financing or refinancing the acquisition of land, buildings, and equipment, at an interest rate of 4 percent. The Rural Electrification Administration makes long-term loans at low rates of interest for the construction of rural distribution lines and 5-year loans to finance installations of wiring and plumbing. The Farm Security Administration also makes loans for community and cooperative enterprises.

During the year ended June 30, 1938, the outstanding loans of the Banks for Cooperatives increased from \$45,000,000 to \$81,200,000. Of the loans outstanding June 30, 1938, commodity loans amounted to \$28,600,000, operating-capital loans \$29,800,000, and facility loans, \$22,700,000. Since its inception the Rural Electrification Administration has allotted \$142,000,000 for loans in 45 States. From July 1 to September 30, 1938 allotments totaled \$54,300,000 as compared with \$29,300,000 during the entire fiscal year 1937-38, and \$46,400,000 during the preceding year. Community and cooperative loans made by the Farm Security Administration amounted to \$1,200,000 in 1937-38 and \$1,100,000 in 1936-37.

New Farm-Mortgage Financing is Expected to Continue
at Present Reduced Levels in 1939

The demand for new farm-mortgage credit in 1939 is expected to continue at the relatively low levels of 1937 and 1938. The volume of emergency refinancing of farm mortgages is now much reduced from the peak of 1934-35 and the normal requirements for loans to refinance maturing mortgages are expected to continue low in view of the large proportion of the outstanding farm-mortgage loans now carrying relatively long terms. Loans of the Federal land banks and the Land Bank Commissioner which are made for long terms amount to about 40 percent of the outstanding farm-mortgage debt, as compared with 33 percent in 1935 and 13 percent in 1930.

No material change is expected in the amount of credit required to finance farm real estate transfers in 1939. The lower farm income of 1938 has tended to reduce voluntary transfers of farm real estate and to reduce land values slightly, but with the anticipated increase in farm income in 1939 prospective farm owners may take advantage of any reduction in land values to purchase farms. Interest rates on farm-mortgage loans will continue to be low in 1939, a factor tending to encourage the borrowing of money to purchase farms, but this may be offset to some extent by a slight upward trend of farm real estate taxes.

Total Farm-Mortgage Debt and Annual Volume of
Mortgage Recordings are Decreasing

Total farm-mortgage debt decreased about \$173,000,000, or more than 2 percent during 1937, and the farm-mortgage loans held by a group of leading lending agencies, accounting for about 60 percent of the entire farm-mortgage debt, decreased about 1 percent during the first half of 1938 (table 3). The estimated outstanding farm-mortgage debt of \$7,082,000,000 for January 1, 1938, is 7 percent below the total for January 1, 1935 and 23 percent below the total for January 1, 1930. The estimated total volume of farm mortgages recorded during the first half of 1938 amounted to \$392,000,000, an amount 6 percent less than for the first half of 1937 and 60 percent less than for the first half of 1934.

The declining volume of farm-mortgage recordings indicates a return to a more normal type of activity in farm-mortgage credit than that which prevailed during the period, 1934-36, when large amounts of farm debt were shifted from private lenders to Federally sponsored agencies. Moreover, the increased proportion of farm-mortgage debt now held by agencies specializing in long-term-amortized loans, and the increased volume of such loans made by commercial banks and individuals tend to reduce the annual volume of mortgages maturing and requiring refinancing. Should increases in farm-mortgage recordings occur in the next few years, they would probably be associated with increased activity in the real estate market and with increased needs of farmers for equipment and improvements.

Table 3.— Outstanding farm mortgage loans of
leading lending agencies, 1929-37

Year	Federal land:		Life insurance companies	Commercial banks	Joint stock:		Three State credit agencies
	banks and Land Bank	Commis-sioner			land banks	1/	
	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars
January 1, 1929	1,194,821	2,138,980	2/		656,516		95,906
" 1, 1930	1,198,514	2,105,477	2/		626,980		93,274
" 1, 1931	1,189,604	2,059,221	3/	945,172	590,811		92,698
" 1, 1932	1,167,898	2,007,361	2/		536,644		93,014
" 1, 1933	1,128,564	1,869,160	2/		459,183		84,075
" 1, 1934	1,303,445	1,661,046	3/	555,885	392,438		79,574
" 1, 1935	2,532,617	1,258,900		498,842	255,931		62,286
" 1, 1936	2,866,651	1,054,770		487,505	175,677		48,091
" 1, 1937	2,900,936	936,454		487,534	133,499		32,657
" 1, 1938	2,848,056	895,470		501,450	104,163		24,657
June 30, 1938	2,803,764	4/ 891,000		512,774	94,139	2/	

1/ Including banks in receivership.

2/ Data unavailable.

3/ June 30.

4/ Estimated.

Farm-Mortgage Loans of Federally Sponsored Agencies
are Decreasing

The farm-mortgage loans held by the Federal land banks and the Land Bank Commissioner declined \$44,300,000 or about 1.5 percent in the first half of 1938, although these agencies closed \$45,700,000 of new loans during this period (table 4). Principal repayments to these agencies amounted to \$56,700,000, or about \$11,000,000 more than the new loans closed and the remainder of the reduction is accounted for mainly by foreclosures. This is a continuation of a similar trend which appeared in the preceding year. During the year ended December 31, 1937 outstanding mortgage loans of these two Federally sponsored agencies declined \$53,000,000, new loans closed amounted to \$103,100,000, and principal repayments amounted to \$114,800,000, or about \$11,700,000 more than the new loans closed during 1937 (table 4).

Table 4.— Estimated amount of farm mortgages recorded in
the United States during the first 6 months, 1934
to 1938, by type of lender 1/

First 6 months of	Federal land banks 2/	Land Bank Commis- sioner 2/	Private lenders 3/					Total all lenders
			Total	Individ- uals	Commer- cial banks	Insur- ance compa- nies	Others	
(Thousands of dollars)								
1934	432,950	309,997	238,278	115,857	56,591	20,732	45,098	981,225
1935	151,795	124,959	300,676	141,300	85,004	37,668	36,704	577,430
1936	67,928	48,133	321,657	134,872	94,003	56,619	36,163	437,718
1937	36,275	23,390	358,532	145,235	116,676	69,492	27,079	418,197
1938	28,897	16,795	346,060	131,745	108,928	74,502	30,385	391,752
(Percent of total)								
1934	44.1	31.6	24.3	11.8	5.8	2.1	4.6	100.0
1935	26.3	21.6	52.1	24.5	14.7	6.5	6.4	100.0
1936	15.5	11.0	73.5	30.8	21.5	12.9	8.3	100.0
1937	8.7	5.6	85.7	34.7	27.9	16.6	6.5	100.0
1938	7.4	4.3	88.3	33.6	27.8	19.0	7.9	100.0

1/ Source: Farm Credit Administration.

2/ Actual amount of loans closed exclusive of Puerto Rico.

3/ Based on reports from counties including from 38 to 49 percent of the farms in the United States.

As of June 30, 1938, matured installments had been paid in full on 78.5 percent of all outstanding Federal land bank loans as compared with 77.3 percent a year earlier and 75 percent on June 30, 1935 (table 5).

Table 5.- Condition of Federal Land bank loans outstanding,
June 30, 1936, 1937, and 1938 by geographic divisions 1/

Geographic division	Percent of loans with all matured installments paid by borrowers			Percent of loans delinquent, includ- ing loans with de- linquent install- ments and/or delin- quent extensions			Percent of loans with all matured installments ex- tended but with no delinquency in such extensions		
	1936	1937	1938	1936	1937	1938	1936	1937	1938
	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:
North Atlantic	84.7	90.0	88.8	14.8	9.4	10.8	.5	.6	.4
East North Central	85.0	88.2	87.9	11.3	8.1	9.7	3.2	3.7	2.4
West North Central	69.0	65.4	66.7	21.2	12.6	16.2	9.3	22.0	17.1
South Atlantic	75.5	81.1	83.5	13.9	8.2	7.8	10.6	10.7	8.9
South Central	73.6	79.1	80.3	14.2	11.1	12.2	12.2	9.8	7.5
Western	71.7	77.9	77.3	21.2	16.0	18.8	7.1	6.1	3.9
United States	75.0	77.8	78.5	16.5	11.2	13.1	8.5	11.0	8.4

1/ Source: Farm Credit Administration.

Life-Insurance Company Holdings of Farm Mortgages
Decrease; New Loans Increase

The outstanding farm-mortgage loans held by life-insurance companies declined about \$4,500,000 during the first half of 1938, following declines of about \$41,000,000 during 1937 and \$118,000,000 during 1936 (table 3). The estimated volume of new mortgages recorded by life-insurance companies, however, was about \$74,500,000 in the first half of 1938 as compared with \$69,500,000 for the first half of 1937 (table 4). During the entire year of 1937 these agencies recorded about \$128,000,000 of new farm-mortgage loans as compared with only \$45,700,000 in 1934. As life-insurance company loans usually are made for shorter terms than those by the Federally sponsored agencies, a larger part of their total recordings consists of refinancing and renewal loans having no net effect on the total amount of their farm-mortgage holdings. The tapering off of the decline in the farm mortgages held by these companies reflects not only the increasing volume of their new mortgage loans but also the decreasing volume of their farm-mortgage foreclosures.

Commercial Bank Holdings of Farm Mortgages Continue
to Increase: New Loans Decrease Slightly

Farm-mortgage loans held by commercial banks rose during the first half of 1938, reflecting in part the usual seasonal fluctuation resulting from the

use of real estate security for crop-production loans, but also in part an upward movement that has been evident the last 2 years (table 3). Although estimates indicate that the amount of new mortgage loans recorded by commercial banks was slightly smaller in the first half of 1938 than in the first half of 1937, even at this reduced level recordings were considerably above the levels of 2 and 3 years ago. The rise in farm-mortgage loans held by commercial banks during the last 2 years has been associated with the increased volume of their new loans, and with a great decrease in the volume of mortgages liquidated through refinancing by Federal agencies. There has also been a substantial decline in the volume of their mortgage foreclosures.

Additional Funds are Available for Tenant-Purchase Loans

For the fiscal year, 1938-39, \$23,750,000 will be available for tenant-purchase loans under the Bankhead-Jones Farm Tenant Act as compared with \$9,200,000 in 1937-38, the first year of the tenant-purchase program. Last year loans were made in 333 counties. The increased appropriation this year will permit lending in 398 additional counties, making a total of 731 counties eligible to receive tenant-purchase funds. The Bankhead-Jones Act authorizes an appropriation of \$50,000,000 for the year beginning July 1, 1939, which if made would permit further expansion of this lending program.

Tenant-purchase loans, made for a 40-year period at 3 percent interest, are for the purchase of family-sized farms, and may not exceed \$12,000 to any one farmer. The amortization and interest payments required of borrowers amount to 4.3 percent of the principal annually. First mortgages or deeds of trust on farm property are taken to secure the loan. Farm tenants, sharecroppers, farm laborers or others with recent farming experience who live in counties selected for tenant-purchase loans may apply for these funds if they cannot obtain adequate credit from any other source. Farm owners are not eligible for these loans.

Federal Housing Administration is Authorized to Insure Farm Loans

New amendments to the National Housing Act authorize the Federal Housing Administration to insure mortgage loans on farm real estate under certain prescribed conditions. This new legislation is designed to encourage lending institutions to pursue more liberal loan policies. The principal restriction on the type of farm mortgages eligible for insurance is that not less than 15 percent of the proceeds of the loans must be expended for materials and labor in connection with the construction or repair of farm buildings. A total of 870 applications for insurance of farm mortgages was received by the Federal Housing Administration from May 15 to August 31, 1938, and 141 of these were accepted.

Debt-Adjustment Activities will be Continued

Many farmers continue to require assistance in obtaining adjustment of their debts and conciliation of creditors' claims. In addition to the informal agreements reached between borrowers and lenders, the Farm Security

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Administration, working in conjunction with county committees appointed by State governors, provides a more or less formal means of mediation. During the fiscal year 1937-38, 16,663 individual cases were handled by the Farm Security Administration, with the result that farm debts amounting to \$56,500,000 were reduced by \$13,700,000. Thirty-three group cases, involving 4,421 farmers, were handled, which resulted in a reduction of \$3,200,000 out of \$5,100,000 of debts. During 1936-37, 27,011 individual cases were handled, with a reduction of \$25,400,000 out of debts totaling \$96,200,000. Sixteen group cases, involving 2,593 farmers in 1936-37 resulted in reductions of \$2,000,000 out of debts amounting to \$3,300,000.

Release Date
October 31, P.M.

THE OUTLOOK FOR FARM LABOR, EQUIPMENT, FERTILIZER FOR 1939

Summary

The combined level of farm-wage rates and prices of commodities used in agricultural production probably will average a little lower in 1939 than in 1938, says the Bureau of Agricultural Economics in summarizing next year's outlook for farm labor, equipment and fertilizer. Farm wage rates weakened in 1938 after advancing from 1933 to 1937. The decline in wage rates, however, was not nearly so great as the decline in prices of most groups of commodities bought by farmers for productive purposes or as the decline in prices of farm products.

The following table shows index numbers of prices received and paid as of September 15, 1937 and 1938. Not much change in the level of farm wages is expected in 1939. Farmers will probably be able to buy farm machinery, automobiles, fertilizer, feed, and seed at slightly lower prices than prevailed during most of 1938. Prices of equipment and supplies are not expected to change much in the coming year. On the other hand, prices of building materials are likely to be slightly higher.

Prices Received and Prices Paid Indexes, September 1937 and 1938

Prices received by farmers for all farm products (1910-14 = 100)			Prices paid by farmers for commodities and services used in production		
	Sept. 1937	Sept. 1938		Sept. 1937	Sept. 1938
All farm products	118	95	All commodities and wages:	130	121
Grain	111	63	Farm wage rates <u>1/</u>	126	118
Cotton and cottonseed....	74	69	Feed	117	87
Fruits	121	75	Seed	172	133
Truck crops	117	98	Fertilizer	102	99
Meat animals	144	117	Farm machinery <u>2/</u>	156	160
Dairy products	123	104	Equipment and supplies ..	115	114
Chickens and eggs	119	118	Building materials	157	147

1/ As of October 1.

2/ Not including tractors.

Farm Labor and Wage Rates

Farm-wage rates in 1939 are expected to average about the same as in 1938. An improvement in the demand for farm products is probable in 1939 and should result in some increase in cash income available for wage payments. This would tend to arrest the down trend in farm-wage rates that has occurred since last October. Employment both in manufacturing industries and on Government work projects probably will expand sufficiently in 1939 to reduce the supply of workers available for hire below that of 1938. Any upward tendency in wage rates on

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non-farm jobs would tend to support farm-wage rates.

Farm-Wage Rates (Per month with board)

Year	Jan. 1	Apr. 1	July 1	Oct. 1
	Dollars	Dollars	Dollars	Dollars
Average 1925-29	32.27	34.37	35.62	35.65
1933	14.77	14.67	15.84	17.19
1937	20.68	23.38	25.28	25.51
1938	22.18	23.86	24.57	24.01

Wage Rates Lower in 1938

The marked upward trend in farm wage rates that was in evidence from 1933 to 1937 was halted in 1938. After rising from 80 percent of their pre-war level in 1933 to 120 in 1937, the rates for hired farm labor dropped about 4.5 percent this year. The pre-war average rate with board was \$20.41 per month.

Farm-wage rates remained above the levels of a year earlier on January 1 and April 1, 1938. In view of the sharp decline in employment and pay rolls in non-farm activities during the last quarter of 1937 and the first half of 1938, however, farm-wage rates made no more than their usual seasonal rise from April 1 to July 1 of this year. As a result, farm-wage rates on July 1, 1938 were below the average on the corresponding period in 1937 and have continued under the corresponding rates of 1937 during the latter half of this year.

The relation of wage rates to hired farm labor and rural living costs in 1939 is expected to be about the same as in 1938. In 1937, farm-wage rates averaged 120 percent of pre-war while rural living costs (as measured by prices paid by farmers for commodities used in living) were 128 percent of pre-war. At these levels the ratio of farm-wage rates to rural-living costs had risen to 94 percent of pre-war. Living costs have dropped slightly more than wage rates this year and the ratio has increased to the highest level since 1930.

The supply of labor available for farm work averaged higher in 1938, as non-farm employment decreased. Relative to demand, the labor supply stepped up sharply during the last quarter of 1937, and on January 1 of this year it had reached 116 percent of normal. Crop correspondents reported little change in the farm-labor supply during the first half of 1938, but demand increased seasonally. On October 1, the excess of supply over demand amounted to 12 percent. With a substantial increase in business activity in prospect, the supply of labor is likely to decrease somewhat. Although the demand for labor may increase slightly, no shortage of farm labor is likely to occur.

The average labor force of both hired and family workers on farms of crop reporters has trended downward since 1929. The replacement of farm equipment with new and improved machines and other technological improvements in re-

cent years have made possible a considerable increase in the productivity per agricultural worker. On July 1, 1938 the total employment per 100 farms of crop reporters was only 82 percent as much as for the same period in 1929. The downward trend in numbers of hired workers during this period was only slightly more pronounced than in numbers of family workers. In view of this downward trend it is not probable that the number of persons employed on farms will increase appreciably in 1939.

Farm Machinery

The marked advance in prices for farm machinery that began in 1933 continued into 1938 and brought machinery prices to the highest level since 1920. Automobiles and trucks formed the only other group of commodities bought by farmers for which prices were higher in 1938 than in 1937. Some declines in prices of automobiles and farm machinery have recently been announced and some further downward adjustment in machinery prices is probable for 1939.

The dollar value of manufacturers' sales of farm machinery this year was 20 to 25 percent less than the record sales of 1937. The use of pneumatic tires on tractors and field machinery appears to be increasing. In 1935, about 14 percent of the wheel tractors manufactured were equipped with rubber tires, in 1936 about 30 percent; in 1937 about 46 percent; and production schedules for 1938 call for 60 to 85 percent of the tractors to be equipped with rubber tires. Field power equipment suitable for the smaller farms is entering the picture, as evidenced by the increasing number of companies making the so-called one-plow tractors, the appearance of the still smaller model and such equipment as "baby" combines (5 to 6 feet). A 40-inch combine has also appeared on the market.

Building Materials

The trend of prices paid by farmers for building materials may be upward during 1939. From June 1937 to June 1938, wholesale prices of building materials declined somewhat, chiefly as the result of the sharp drop in lumber prices. The decline in wholesale prices of building materials was partly reflected in the level of prices paid by farmers, and the index of prices paid for building materials declined about 7 percent from mid-1937 to mid-1938. In recent months, however, there has been some advance in wholesale prices for lumber and it is probable that this advance will be followed by some advances in prices to farmers during the next year. Wage rates in the building trades have been fairly steady during the past year. Little change is expected in wage rates paid to rural carpenters in 1939.

The trend of wholesale prices of the different building materials during last year varied considerably. In June 1938, wholesale prices of cement, brick, and fencing were practically unchanged from a year earlier, whereas prices of many kinds of paint were slightly higher than in 1937. Prices of lumber, particularly common boards and framing material, were considerably lower than in June 1937. During the third quarter of 1938, prices of lumber advanced slightly but were still somewhat lower than a year earlier.

Because of the large amount of building materials usually carried in local lumber yards, there is generally a lag between advances in wholesale prices

of building materials and advances in retail prices. As a result of this lag it is possible that the recent advance in wholesale prices will not be reflected in prices to farmers until some time in 1939.

Index of Prices Paid by Farmers for Building Materials
Used in Production
(Average 1910-14 = 100)

Year	Mar. 15	June 15	Sept. 15	Dec. 15
1936 ... :	145	147	146	147
1937 ... :	155	157	157	154
1938 ... :	149	147	147	

Fertilizer

Retail prices of fertilizer during the 1939 fertilizer season will probably average slightly lower than a year earlier. The greatest decline in prices is likely in organic ammoniates, as wholesale prices of tankage and bone meal in September were somewhat lower than a year ago. During 1938, the level of fertilizer prices has been about the same as in the period 1910-14 and will probably be from 95 to 100 percent of the 1910-14 average in 1939.

Wholesale prices of fertilizer materials have declined about 1 percent from June 1937 to June 1938. Marked declines in the prices of bone meal and tankage have been partially offset by slight advances in prices of mineral ammoniates and nitrates. Prices of phosphate rock and superphosphate were unchanged from a year earlier. Wholesale prices of mixed fertilizers in mid-1938 averaged about 4 percent lower than in the corresponding period of 1937. Prices were slightly higher in the Middle Atlantic States and unchanged in the New England States, but were 6 to 10 percent lower than a year earlier in the Southern States.

Fertilizer sales in 1938 were about 10 percent below the record tonnage sold in 1937. The quantity of fertilizer purchased is determined primarily by farm income in the preceding year. It is probable that the total tonnage of fertilizer sold in 1939 will be lower than in 1938 in line with the decline in cash income received by farmers for crops grown in 1938.

Index of Prices Paid by Farmers for Fertilizer
Used in Production
(Average 1910-14 = 100)

Year	Mar. 15	Sept. 15
1936 :	95	96
1937 :	102	102
1938 :	100	99

Release Date
November 2, A.M.

THE OUTLOOK FOR FARM FAMILY LIVING IN 1939

Summary

For the country as a whole, net cash income available to farm families for living expenses and getting ahead financially is expected to be somewhat higher in 1939 than in 1938.

Higher net income from farm marketings is anticipated for 1939; gross receipts should increase, following a prospective increase in demand for farm products, and production expenses are expected to remain at approximately 1938 levels. Income from Government payments, including price adjustments to cooperators with the 1939 program, probably will exceed the 1938 payments. The income that farm families receive from nonfarm sources may be a little higher in 1939, with improving business conditions. Altogether then, it is probable that the total net money income of farm families from marketings, Government payments, and nonfarm sources will be somewhat larger in 1939 than in 1938.

As incomes rise, farm families tend to spend part of the increase for living but they apply a larger share than do city families toward getting ahead financially--paying off debts and making investments, especially in the farm business. Any general improvement in farm income, therefore, will tend toward bettering the general net worth situation of families, particularly among those with net money incomes of \$600 and more. Below this income line, farm family living has first claim on funds and only the small family with a goodly supply of farm-furnished food can devote cash to increasing its net worth.

Levels of living possible for farm families depend largely upon the amount of their net money income and its potential purchasing power, though the urgency of demands of the farm business and the burden of debt the family faces affect decisions as to how money will be used. Farm-furnished housing, food, fuel, and other products also play an important part in determining the plane of living achieved. Dollar for dollar, the family's money income is expected to stretch about as far next year as this since the general level of prices of commodities bought for living is not expected to change much in 1939 from late 1938. With cash income in 1938 more limited than in the previous year, many farm families may plan to enlarge their programs of food production for home use in 1939, thus releasing money for other purposes. Even with a large home-production program, food still tends to make the major demand on the cash for living.

During the 1930's there has been a trend toward broadened social contacts for farm families through improved transportation and communication. Better roads, more widespread ownership and greater use of automobiles, and increased numbers of radios have contributed to this development. About three-fifths of all farm families now have radios and there is likelihood of a further increase in ownership in 1939 with the anticipated improvement in income and greater availability of electricity.

While relatively more city than farm families own radios, there is evidence that the situation in regard to automobile ownership is reversed and that the proportion of car-owning families on farms outstrips that in cities. Automobiles were owned by more than 85 percent of the native-white nonrelief families of farm operators included in a 1935-36 study of family living, except in the Southeast and in Vermont. Even in these areas the percentage exceeded 60. Many of the cars of these farm families had been bought in the used-car market--about two used cars to each new one bought during that year--but new or used, they enabled farm families to have a more interesting and varied life than two decades ago.

Trends toward more comfortable living are evidenced by electrification and other improvements of farm homes and by purchases of household equipment that lightens labor. Electricity now is used on 18 percent of all farms as compared with 13 percent in 1930. These trends bid fair to continue in 1939--in part because of the Government program of encouraging rural electrification, and in part because of anticipated income increases.

Ways of spending of farm families are being changed by these new ways of living. In two-thirds of the farm areas included in a 1935-36 study of family living, expenditures for the purchase and operation of the family car took about one-sixth of the aggregate expenditures for all living of non-relief native-born, white families of farm operators--both those having and those not having automobiles. A 1922-24 study showed less than one-tenth of expenditures allocated to the family's use of the automobile. Increased outlays for the automobile and household operation tend to crowd clothing to the fourth place in order of amount spent, with food still ranking first.

Careful financial management is important if the farm family is to buy these new comforts and conveniences. In stretching their funds for these purchases, farm families are becoming more conscious of their buying problems. Along with city families, they are showing an increasing interest in consumer education and protection and in consumer organizations. This trend is expected to continue.

FARM FAMILY INCOME

Farm families are expected to be better off in 1939 than in 1938; the anticipated improvement in general business conditions and improved incomes of urban workers should increase the demand for farm products. Any widespread betterment of the economic situation will mean not only larger returns to the farm family from agriculture but the possibility of increased income from nonfarm sources.

Net Cash Income from Farming in 1938,
and Outlook for 1939

Income from farm marketings is expected to be somewhat higher in 1939 than in 1938, because of the anticipated increase in industrial activity and national income. It is anticipated that these increases in gross cash receipts in 1939 will be accompanied by little change in farm-production expenses from those of 1938, so that net cash income from marketings is expected to be materially higher in 1939 than in 1938. Income from Government payments in 1939, including price-adjustment payments to those who cooperate in the 1939 program, also is expected to exceed Government payments in 1938.

Gross income of farmers from marketings of farm products and from Government payments for the calendar year 1938 is estimated at approximately 7,500 million dollars. This is about 13 percent lower than the corresponding figure of 8,600 million dollars for 1937, and 6 percent lower than the 1936 figure. However, it is higher than that of any other year since 1930. Proportional decreases in expenditures for production were smaller in gross receipts from marketings in the period from 1937 to 1938. However, farmers were able to reduce their total farm-production expenses slightly in 1938, because of a moderate decline in prices of commodities and services used in production, together with some curtailment in purchases. Net cash income from agriculture, therefore, declined proportionally more from 1937 to 1938 than did gross income.

Gross Income from Farming

Gross income from marketings in 1938,
and outlook for 1939, U. S. as a whole

The decline in income from farm marketings in 1938 has been more pronounced for crops than for livestock and livestock products. During the first half of 1938, marketings of crops were somewhat larger than a year earlier, but this was more than offset by the market decline in prices. Income from sales of crops during this period was 20 percent below the corresponding months of 1937. Marketings of cotton and fruit during the latter half of the year will be somewhat smaller than in 1937, but marketings of wheat and other grains will be larger. Because of the prospective reduction in sales of many crops and the marked decline in prices, farm income from crops is expected to continue somewhat below the 1937 level through the remainder of 1938.

Farm income from livestock and livestock products in 1938 is somewhat higher than in 1937, due largely to the increase in output of dairy products and the increased volume of hog marketings. Although prices of nearly all livestock and livestock products have been somewhat lower than a year earlier, this has been partly offset by larger volume of sales.

Improvement in farm income in 1939 is likely to be associated with those commodities which enter rather directly or immediately into consumption. Production of livestock and livestock products is expected to continue upward and to be larger in 1939 than in 1938. With an upward trend in consumer incomes, it is probable that these larger supplies will result in more farm income from these sources than in 1938. Fruit and vegetable crops in 1939 also may be larger than the moderate sized crops of 1938, and income from these products should be higher.

The less perishable crops, such as grains, cotton, and tobacco, require more processing and may be carried over from season to season. In 1939, income from these crops will be influenced somewhat by large carry-overs now in prospect. Moreover, the prices of several important commodities recently have been supported by Government loans or purchases above the levels that would have prevailed under normal supply-and-demand conditions. Prices of these commodities, therefore, are not expected to reflect immediately and fully the improvement in demand.

Income from marketings in 1938, and
outlook for 1939, by regions

North Atlantic States.--Income from marketings in the North Atlantic States in the first 8 months of this year was only slightly lower than in the corresponding period last year. Most of the cash farm income in this region is obtained from sales of dairy and poultry products. However, in areas that specialize in tobacco, potatoes, apples, and truck crops, income is considerably lower than a year earlier.

As these States are a deficit feed-producing area and as feed prices in 1938 have been considerably lower than a year earlier, it is probable that the decline in gross income will be reflected in net income less than in most other regions of the United States. Because of the importance of the production of whole milk and poultry products, the farm income of this region probably will reflect any improvement in consumers' incomes in 1939.

East North Central Region.--In this region, receipts from farm marketings in the first 8 months of 1938 were about 10 percent below the same period of 1937; they may show a smaller percentage difference in the last 4 months. Because of the importance of livestock and livestock products in the total farm income of this region, any improvement in industrial activity should be reflected in increased farm income.

West North Central Region.--Crops in this region in 1937 and 1938 have been more nearly normal than for several years, and have been accompanied by a marked increase in numbers of livestock and in output of livestock and livestock products. During the first 8 months of 1938, income from farm marketings in this region was only about 5 percent below the same period of 1937. With larger feed supplies and increased livestock numbers it is probable that this region in 1939 will increase its output of livestock and livestock products more than other regions, and will receive a larger proportion of the United States gross cash income from farming than in the last few years.

South Atlantic Region.--The major portion of the income in the South Atlantic States is obtained from crops and a large part of the annual return is received in the last 5 months of the year. Because of the smaller cotton crop and lower prices of most of the important crops produced in this region, income in the latter months of 1938 is likely to be somewhat below that of the same period in 1937. However, with an upward trend in consumer incomes in prospect, it is probable that in the early part of 1939 the fruit, vegetable, and truck crops will yield a larger income to farmers in this region than in 1938.

Farm Family Living

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South Central Region.--In this region also a large share of the annual income is received in the last 5 months of the calendar year. Receipts from farm marketings during the first 8 months of 1938 were only 5 percent below the total for the same months of 1937. The output of important crops in 1938 was somewhat lower than in 1937. With prices now lower than a year earlier, present conditions indicate that income in this region will be lower during the remainder of 1938 and the early months of 1939 than in the corresponding period a year earlier.

Western States.--Farm income in these States increased much less than seasonally from January through August, and in August was nearly 30 percent lower than a year earlier. However, this lower income has been due in part to favorable feeding conditions which have retarded the movement of livestock to market. Livestock probably will move to market this fall in better condition and in larger volume than in recent years. This, together with the prospect for some improvement in the demand for fruits and truck crops from this region, should result in a greater than seasonal improvement in farm income during the remainder of 1938 and the early months of 1939.

Income from Government payments in 1938, and outlook for 1939

Income from Government payments for the country as a whole in the first 8 months of 1938 totaled \$309,000,000 and was 11 percent smaller than the \$346,000,000 of the same period of 1937. During the last 4 months of 1937, Government payments amounted to about \$21,000,000; they are expected to be larger in the last 4 months of 1938.

Income from Government payments in 1939, including price adjustment payments to cooperators with the 1939 program, is expected to exceed Government payments in 1938.

Income from Nonfarm Sources

Net money income from farming is supplemented by varying amounts of money income from nonfarm earnings, from rents, pensions, interest, and other sources. Data are not available to show the magnitude of this income in 1938, but some indication of its importance is afforded by two recent studies. A survey ^{1/} preliminary to the 1940 Census of Agriculture showed that on the farms covered, about one farmer in three had income from nonfarm sources in 1937. About one-fourth of those having such income received less than \$100 each; another fourth from \$100 to \$300. The average for those having such income, \$573 per farm, is higher than the median of \$300, owing to the large incomes from nonfarm sources obtained by some farmers.

^{1/} Made by the Bureau of the Census, Department of Commerce and the Division of Crop and Livestock Estimates, Department of Agriculture, in January 1938; 3,000 farms in selected counties of 40 States were included.

These figures on income of farmers from nonfarm sources are in line with those for 1935-36 obtained in the Consumer Purchases Study^{2/} of the Bureau of Home Economics. Although the greater part of the net cash income of these farm families came from farm operation, the receipts from nonfarm earnings, investments, and other sources averaged 25 percent or more of aggregate net cash income in 11 of the 20 groups of white operators studied. For all such families included in these 11 groups (whether they had or had not received income from nonfarm sources), the average net nonfarm receipts per family ranged from \$61 in counties of North Dakota to \$678 in Southern California. Negro farm operators in the Southeast, and sharecroppers both white and Negro, reported net cash nonfarm receipts averaging less than \$50 per family.^{3/}

Members of many farm families in 1938 had income from employment on projects of the Works Progress Administration and some young people from farm homes received assistance from the National Youth Administration. Figures for such employment are not available for rural areas separately from urban. The recent WPA ruling that makes workers in the South with incomes below a specified minimum eligible for WPA employment without prior certification for relief, probably will enable many farm households thus to supplement their incomes in the next few months.

Many farm families in 1938 also benefited from other relief programs. Emergency grants for subsistence by the Farm Security Administration, however, were almost 50 percent smaller in the first 6 months of 1938 than in the corresponding period of 1937.

Rural areas also have shared in the rapid development of special types of public assistance, as old-age assistance, aid to dependent children, and aid to the blind. Data are lacking for estimating the amounts received by farm families from these sources.

Nonmoney Income of Farm Families

Although farm families ordinarily aim for large money incomes, since they live in a money economy, nonmoney income from products furnished the family by the farm is a factor of great significance in determining their

^{2/} This study covered a random sample of native-born nonrelief families of farm operators in 66 counties selected to represent different type-of-farming areas.

^{3/} In using these figures it should be remembered that the exclusion of foreign-born, of Negroes (except in the Southeast) and other colored races, of broken families, of families on farms where they had not lived for a year, and of farm laborers, tended to eliminate some of the lowest income families. In addition, the areas, chosen as being well adapted to a specific type of farming (as cotton or wheat) often were not typical of the State as a whole but represented better farm land than the average.

Farm Family Living

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levels of living. Not only does home-produced food help to insure better diets but by the use of farm-furnished food and other products cash is released for other purposes and families are thus enabled to buy more of the goods and services they do not produce.

According to estimates of the Bureau of Agricultural Economics, 1,250 million dollars' worth of food and fuel were retained in 1938 for consumption by farm families. On the whole, 1938 was a good year for gardens, and for feed crops for poultry, dairy cows, and meat animals, and considerably more food was reserved for home consumption than in 1937. Because of the lower prices at which the monetary worth of these products was estimated, the money value figure is lower than in 1937. However, the use-value of the farm-furnished goods to the family does not diminish as market values decrease. A goodly proportion of the supplies produced in 1938 will be stored to contribute to the well-being of the family in the early months of 1939. It is probable that many families will tend to plan for generous home-production programs in 1939, following a year of reduced money resources for family living.

Beginning in 1935, families on relief or certified by local agencies as needy, have received food supplies purchased by the Federal Surplus Commodities Corporation and distributed through State welfare agencies. It is estimated that about 20 percent of all families now receiving these products live on farms. Reports show that about 48 million dollars' worth of commodities were distributed to families in the period July 1937-June 1938, and that families receiving these products were given an average of about 50 pounds of products each month. It is expected that about twice this amount will be distributed in the fiscal year 1938-39. These goods are distributed in addition to other aid which families are receiving, and are not to be considered as a substitute for other assistance.

LEVELS OF LIVING OF FARM FAMILIES

Population Movements

Sons and daughters of farm families may remain in agriculture or go to cities to earn; opportunities for making a satisfactory living offered them by the different types of communities help to determine their decisions. A decision by large numbers of young persons to leave the farm for the city would have a far-reaching consequence for farm families; it would affect plans for tenure of land, for old age, and for consumption and many other phases of the family's day-to-day living.

During recent years, farm population has been affected by factors working in opposite directions. On the one hand, the business recession has tended toward an increase by retarding the movement from farms to cities and by encouraging families to move to farms. On the other hand, droughts have lessened opportunities to make a living by farming in the severely affected areas

and thus have tended to reduce farm population there. Technological improvements in agriculture including increased use of power machinery in some areas also have decreased the number of persons required to produce the nation's supply of agricultural products.

The net result of these and other factors was a slight increase in farm population in 1937. In that year the net movement of 288,000 persons from farms was more than offset by the excess of 378,000 births over deaths. Farm population changes during 1937 were not uniform throughout the country. Some net increases occurred except in the drought-stricken States of the Mountain and the West North Central regions. Increases were largest in the Pacific Coast and New England regions.

The ways of living of all farm families--whether these of laborers or operators--are of grave concern to agriculture. An influx of unneeded farm labor into any farm community creates problems for agriculture analogous to those faced by cities with slum areas. In recent years the far Western States have received numerous migrants from the drought areas of the Great Plains. They have also received them from the South and Southwest, where birth rates are high, and opportunities for migration to cities are limited. These migrants have lacked capital for buying land; many have found no employment save a few seasonal jobs. They thus have become nomads, unwanted by any community and without funds for an adequate level of living. The problem of finding useful employment for thousands trained in agriculture on the Great Plains and in the South, but no longer needed there, presses for solution.

Outlook for Expenditures and Savings of Farm Families

Farm family income may be considered a rough index of potential well-being of families engaged in agriculture. A recent report made by the National Resources Committee gives the following estimates of the distribution of non-relief farm families (operators and laborers living on farms) by net family income for the year 1935-36: Less than \$500, 18 percent; \$500-\$999, 35 percent; \$1,000-\$1,999, 34 percent; \$2,000 and above, only 13 percent. In this report, net family income is defined as total net income from farming (including an imputed value of occupancy of the farm house and of goods furnished the family by the farm) and money income from nonfarm sources.

The use of net income--how much the farm family allocates to living and how much to getting ahead financially--varies with economic levels. Other factors, such as the number and age of family members, the planes and standards of living current in the community, and climatic and other regional conditions--all affect this allocation of funds. However, the income must provide for the family's most urgent needs before saving begins. According to the Consumer Purchases Study of 1935-36, a large number of families began to depart from a mere balancing of living expenditures with income and to pay off obligations or increase assets, when their total family income was about \$1,000 (net money income between \$500 and \$1,000). In Pennsylvania and Ohio, and in Oregon and

Washington, farm families as a group seemed to need an average net money income of about \$600 to meet expenses for family living without a deficit. When incomes passed this mark, a large number of families began to get ahead financially by such means as making payments on the principal of the farm mortgage or other debts and by investing, usually in the farm business. This tendency of families to save by applying the brake to expenditures for living is found at lower income levels in farm communities than in cities.

With changes in income and price levels the farm family must adjust its program of spending and saving. During the year ending September 15, 1938, prices paid for commodities bought for farm-family maintenance declined 6 percent--much less than did national income from agriculture. During this period the retail index of food prices declined 12 percent; of clothing, 5 percent; of furniture and furnishings, 4 percent; and of building materials, 7 percent, according to the Bureau of Agricultural Economics. The index for operating expenses remained unchanged.

The general level of prices of commodities bought for farm family living are not expected to change much in 1939 from present levels. If incomes increase as anticipated and prices remain about the same, farm families may be able to spend and to save somewhat more in 1939 than in 1938.

The Food Supply of Farm Families,
1938, and Outlook for 1939

Diets of nonrelief farm families tend to be definitely better than those of village or urban dwellers at similar economic levels, largely because of their food production for family use. More particularly, it is the farm families' use of home-produced eggs, milk, vegetables, and fruit--foods sometimes called "protective foods"--that is responsible in many cases for their higher dietary levels. These foods furnish minerals and vitamins that are likely to be deficient in the diets of a large proportion of nonfarm families.

The amount and kind of protective foods furnished by the farm vary with region and type of farming. Thus in 1935-36, families of native white non-relief farm operators produced an average of only 1 1/2 dozen of eggs a week in counties of southern California, whereas about 3 1/2 dozen a week were reported by similar families in the West North Central states, according to the Study of Consumer Purchases. Aside from the five highest and five lowest values reported by the 20 groups of white operators' families studied, the range in consumption of farm-furnished eggs was from 2 1/4 to a little over 3 dozen a family a week. Comparable figures for farm-furnished milk were 4 1/2 to 5 gallons. The average weekly value, season in, season out, of fruits and vegetables was from \$1 to \$2.^{3/} Low consumption of vegetables and fruits is

^{3/} In this study all food was valued at prices that families would have paid had they bought similar quantities of similar quality from neighbors or other likely place of purchase.

responsible for the relative deficiency of vitamin C found in many farm family diets. Where production conditions are favorable for raising vegetables and fruits, families would do well to consider whether they could improve their living levels by raising for home consumption more of these foods.

Although the diets of farm families tend to be superior to those of village and urban dwellers of comparable economic status, many farm families have diets that are inadequate nutritionally. There may be too little money for food; families may have insufficient capital to invest in the needed cows and meat animals or too little land to grow their feed; conditions may be unfavorable to gardening.

Were the 1,250 million dollars' worth of farm products (chiefly food valued at farm prices) that were retained on farms in 1938 for family consumption equally divided among the more than 6 million farm families in the country, it would amount to about \$200 worth per family. Of course, it is not equally divided. Large families tend to have more than small, and among families of the same size, those at the upper money-income levels tend to have more than the less well-to-do. However, the lower the family's money income, the more does its well-being depend upon these supplies.

The last few years have seen a definite trend toward better planning to meet family food needs. In many farm homes the family now estimates the quantities of different foods needed for satisfactory diets; it then decides what and how much might well be home-produced and what and how much purchased. The Extension Service has given this program special emphasis since 1930.

The Farm Credit Administration likewise is encouraging its borrowers to produce the major part of their food supply. Experience has shown that the family's basic needs have first claim on the farm income. If cash expenditures for this item can be reduced through a larger program of home production, more money will be available to meet expenses for the farm business, and interest and installment payments on the loan. The Farm Security Administration also has supported food-production programs through its policy of loaning money on the basis of farm and home management plans which provide for raising enough vegetables and livestock to meet the family's own subsistence needs throughout the year.

Continued interest is shown by farm families in "canning by budget" and in improving indoor and outdoor storage facilities. An outstanding development contributing to successful conservation of home-produced food by farm families is the establishment of storage lockers in local refrigeration plants. This started on the Pacific coast, has spread through the Middle West, and is now getting under way in the South. The movement is only in its beginning in the East. Trade papers estimate that there now are about 2,500 such plants in the United States with a total capacity of 850,000 lockers, and that others are being established at the rate of about 50 per month. At present these lockers are being used chiefly for the storage of meat, but their use for vegetables and fruit is growing.

Expenditures for food are larger than for any other item of family living. In three-fourths of the farm areas studied in 1935-36, average food expenditures of nonrelief families of native-born white farm operators ranged from \$154 (Georgia and Mississippi) to \$261 (Colorado, Montana, and South Dakota).

Prices paid by farmers for food have declined markedly since June 1937. In 1939 they are expected to average about the same as in 1938. Lower average prices for some cereal products, and pork are expected to about offset higher prices for potatoes and truck crops. The outlook for higher prices for vegetables may lead some families to try to broaden their 1939 programs of production and conservation of vegetables for home use.

Outlook for Broadening Social Contacts Through the Telephone, Radio, and Automobile

The farm family's opportunities for improving its social and cultural life have been multiplied in recent years, chiefly because of greater use of the automobile, increased radio ownership, more hard-surfaced roads, and improvements in rural mail delivery and telephone service.

The proportion of farm homes with telephones probably has increased little, if any, since 1930, according to data from the 3,000 farm families studied in the 1938 preliminary census survey of agriculture.

For radios the story is different. On January 1, 1925, only 6 percent of all families in the counties studied in the preliminary 1938 farm survey owned radios. The proportion had increased to 29 percent by 1930; by January 1, 1938, it reached 62 percent of the families included in the survey. The Joint Committee on Radio Research estimates that 59 percent of all farm families owned radios on January 1, 1938. This committee also reports a large sale of radios to farm families in 1936 and 1937, especially in those areas with relatively high purchasing power.

Ownership of radios probably will continue to increase because of the pleasure and information they bring to the farm home. Prices of 1939 models are somewhat below the early prices of 1938 models. However, because improvement in demand is anticipated and because stocks on hand are much smaller than those of a year ago, there may be less price-cutting during the coming year than occurred during the present year.

The number of automobiles and the number of radios owned by all families--urban and rural--in this country in 1937-38 was about the same; about 25.5 million passenger cars were registered in 1937 and 26.7 million radios were owned January 1, 1938, according to recent estimates. City families outstripped those on farms in the proportion owning radios; but relatively more of the farm families had cars.

The automobile ranked second to food in the list of money expenditures of farm operators' families with incomes of \$1,500 and over, in Pennsylvania and Ohio in 1935-36. Seventeen percent of the total money outlay for living of these families went to the family's share of expenses for car purchase and operation. When incomes were below \$1,000, the automobile competed with clothing for third place, being outranked only by food and household operation. This increase in the importance of the automobile in the farm family's spending pattern has occurred largely during the last 15 years. In 1922-24, a study of farm-family living in 11 States showed expenditures for the automobile taking only about 9 percent of total money outlay for living, and ranking below expenditures for food, clothing, household operation, and advancement.

On the basis of the 1938 preliminary farm survey, the Bureau of the Census estimates that the number of farm families owning automobiles has increased about 10 percent since 1930. According to the Consumer Purchases Study, car ownership in 1935-36 was reported by 97 percent of the nonrelief, native, white families operating farms in California, North Dakota, and Kansas; by 73 percent of those in Vermont; and by 62 percent in Georgia and Mississippi. Only about one-fifth of the white sharecroppers in these southern States had cars.

Many of these farm automobiles came from the used-car market. About twice as many used cars as new ones were bought in three-fifths of the farm areas studied. Only in California were more new than used cars bought. In the East North Central region, about 50 new cars and 125 used cars per 1,000 families were bought in 1935-36. Most of the new cars had a gross price between \$500 and \$1,000. The price of the used cars generally was between \$200 and \$400; only a few cost \$50 or less.

Apparently, the farm family's car is expected to serve over a relatively long period. The families included in the 1938 preliminary farm survey reported that more than half the cars owned were at least 5 years old, and one-sixth had served 10 years or more.

These figures on ownership and purchases of automobiles indicate the interest of farm families in trends in car prices and operating costs. Prices of 1939 models are about 5 percent less than those of 1938 models.

Car mileage and operating expenses are closely related to family income. For example, in the lowest income group (\$0-\$249 net money and nonmoney income), car-owning farm families in Pennsylvania and Ohio drove an average of 2,011 miles for pleasure and household business during the year; at the highest income level (\$5,000-\$9,999) the average mileage was 8,476 miles. Average expenditures for car operation were \$51 and \$144, respectively, at these two levels. Gasoline accounted for approximately one-half the total spent for car operation by families in every income class. No marked change in the price of gasoline is anticipated in 1939. It is probable that the prices of tires may advance somewhat, but the average outlay for tires and tubes usually accounts for only about 10 percent of the average total spent for car operation.

Outlook for Electricity and Other Facilities
Increasing the Comforts of the Farm Home

In spite of the downs and ups of farm income in the 1930's, there is evidence of various kinds of improvements in farm living conditions during this period. Use of electricity has increased; it is estimated that about 18 percent of all farms had electricity on January 1, 1938, as compared with about 13 percent in 1930.

The number of farms served by central electric stations increased from 1,043,000 at the end of 1936 to 1,242,000 at the end of 1937. According to a tentative estimate, farms with electric current from central stations numbered about 1,300,000 on June 30, 1938. These figures do not include approximately 250,000 farms with individual lighting plants.

The Rural Electrification Administration loaned \$90,000,000 during the year ending June 30, 1938, and expects to increase its loans to \$140,000,000 during the current fiscal year. Not only have such loans enabled many farms to secure electric service, but the farmers' cooperatives receiving these loans have effected material savings for their members on service charges.

On December 31, 1937 according to the Edison Electric Institute, the three States with the highest proportion of occupied farm dwellings served by electric central stations were: Rhode Island, 95 percent; California, 89; Utah, 74. The three with the lowest proportion were: North Dakota, 4 percent; Arkansas, 3; Mississippi, 2. It is expected that electrification of farms will continue at a high rate in 1939 although smaller increases may occur in subsequent years.

Electric rates paid for farm residences in 1936 were about 83 percent of what they were in 1910-14, for the country as a whole, according to a recent study made by the Bureau of Agricultural Economics. This downward trend is expected to continue into 1939.

The use of motor-driven equipment for lightening household tasks is related to many factors, important among them income and availability of electricity. Although washing machines and other appliances with gasoline or kerosene motors are in the markets, those driven by electricity are more commonly purchased. According to a recent study made by the Rural Electrification Administration of its first 46 projects, the proportion of clients having various electric appliances was: Radio, 86 percent; iron, 81; washing machine, 47; refrigerator, 26; toaster, 24; water pump, 17; vacuum cleaner, 16. Customers had had electric service for an average of 8.4 months when the survey was made.

The trend toward electrification of farm dwellings and installation of equipment making for comfortable living bids fair to add materially to the day-by-day cost of running the house, as well as to entail a comparatively large capital investment.

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The market for electrical appliances was weak in 1938, especially during the summer, with consequent price-cutting and generous allowances for some types of old equipment turned in. However, the market now appears to have stiffened somewhat, according to most trade sources.

Important as electricity is for farm family living, running water may do as much or more toward easing the homemaker's burdens and increasing the comfort of the whole family. A house with no sanitary facilities except a kitchen sink with drain would be considered unsatisfactory by many urban homemakers. But to many a farm housewife the provision of a sink would be a long step forward and would mean more than a comparable expenditure for any other housing improvement. Only about one-third of the operators' families included in the 1938 preliminary census survey of agriculture had running water piped to their dwellings. This number represents a considerable increase since 1930, but still is far below a desirable standard for farm families.

The situation in regard to running water in farm dwellings varies greatly from State to State. According to the Housing Survey made in 1934 as a CWA project, fewer than 5 percent of the farm houses had a sink with a drain in the counties studied in Alabama, Louisiana, Arkansas, Mississippi, Georgia, and South Carolina. Only in 7 out of 46 States did more than 80 percent of the families in counties studied report such equipment: California, New Hampshire, Connecticut, Rhode Island, Maine, Vermont, and Massachusetts. These figures are believed to be optimistic, inasmuch as some houses, probably not on main roads, were accidentally omitted.

Following this study there were reports of a trend toward improved housing facilities as a consequence of special arrangements for financing such undertakings. However, the situation about 2 years later still left much to be desired, according to the Study of Consumer Purchases. Among families of native white farm operators in the \$1,000-\$1,249 income class, the proportion of homes with hot and cold water in kitchen and bath ranged from 5 percent or fewer in the Southeast to 75 percent in the California counties studied. The lack of sanitary facilities on farms is greater in the South than elsewhere.

The outlook for an increase in the number of farm homes with running water and other sanitary facilities is related not only to the outlook for increased family income but also to family choices as to ways of spending and to the ability of farm family members to install such conveniences themselves or to obtain the services of others for this purpose.

Outlook for Expenditures for Furniture and Furnishings, Household Operation, and Building Materials

Average expenditures for furnishings and equipment represent only about 6 percent of the total money outlay for living among nonrelief farm families, according to data from Pennsylvania and Ohio. The movement of

furniture prices thus is of minor concern to the majority of farm families, except when they are starting housekeeping or planning to buy relatively expensive articles. Furniture prices, according to trade sources, may be a little higher in 1939 than in 1938. Manufacturers in September were unwilling to take orders for delivery next year at current prices. On the other hand, there is some tendency for increased quantities of furniture to be sold from sample--a practice said to reduce retailers' carrying charges and therefore to bring about some reductions in prices to customers.

The farm family's money outlay for household operation usually ranks among the four highest expenditure items of its budget, and fuel and light take a fair share of this outlay despite the frequent use of wood from the farm. No marked changes in prices of gasoline, kerosene or gas appear probable next year. Stocks of these products are much larger than a year ago. Coal prices, especially for bituminous coal, may be somewhat higher.

Prices of building materials are a factor in the farm family's decisions as to whether this is a good year to undertake repairs or major improvements on its dwelling or to build. Retail prices of building materials declined considerably in late 1937 and early 1938, followed by some recovery in prices in the early fall. Prospects for increased building activity, reduced inventories of some building materials, and some increases in costs are likely to result in an upward trend in prices of building materials.

Outlook for Clothing and Textiles Expenditures

Clothing expenditures of farm families averaged less than \$125 per family in the areas included in the Consumer Purchases Study; yet they ranked among the "big four" of living expenses, along with food, household operation and the family use of the automobile. While many garments are bought ready-made, the farm family does more home-sewing than the urban and thus is interested in movements of prices of both clothing and materials.

Clothing prices are expected to average a little higher in 1939 than in 1938, although prices of some textiles may be about the same. Wholesale rayon prices declined considerably in the first half of 1938 followed by some advance in August. With the likelihood of relatively higher prices of garments than of cloth, many families bent on reducing living expenses in 1939 may increase the proportion of clothing made at home.

The increase in prices of leather and the reduction in shoe inventories, along with an improvement in demand, points to some increase in the price of shoes in the coming year. As the shoe bill generally takes a larger proportion of the total clothing budget of families on farms than in villages or cities, this outlook may cause the thrifty to give special attention to the care and repair of shoes and boots.

Outlook for Family Purchasing

Farm families are becoming more conscious of their problems as consumers. In an effort to buy more intelligently, they have been making larger demands upon the various Government and private agencies for information and guidance. The number of farm families reached by the Extension Service through publications and meetings on consumer education increased sharply in 1938.

Consumer education courses are being added to the curricula of many secondary schools and universities. In the public schools of Minnesota and Wisconsin, education on consumer cooperation is compulsory. The number of books and pamphlets regarding various aspects of consumer education has increased rapidly, leading to the publication of many bibliographies.

Special bureaus for the protection of consumers have been advocated. The State of Michigan in 1938 established a Consumers' Bureau in the Department of Agriculture, but a similar proposal was rejected in New York. In Indiana, Minnesota, and Wisconsin, consumer organizations also are asking for the establishment of a consumer agency.

Culminating a campaign for more stringent Government protection of consumers, Congress, during last session, enacted two laws which gave consumers many new and more effective safeguards. The Wheeler-Lea Bill gives the Federal Trade Commission power to curb false advertising of food, drugs, cosmetics, and healing devices, and to intervene to protect consumers against unfair and deceptive commercial practices. The Food, Drug, and Cosmetic Act gives the Food and Drug Administration increased powers to regulate interstate commerce in food, cosmetics, healing devices, and drugs. Specifically designed to regulate the sale of dangerous drugs, the law also empowers the Administration to establish standards of identity, quality, and fill-of-container, for practically all foods. More stringent label requirements were established.

Business also is recognizing this desire of consumers for accurate and complete information about the goods they buy and the Consumer-Retailer Relations Council is conducting a national survey of the kind of informative labeling of certain textile products and household equipment found acceptable by consumers, retailers, and manufacturers.

A major problem in the field of consumer education that has arisen during the past year has been the increase in the number of so-called consumer organizations that appear to be commercially sponsored for furthering the interests of the sponsors rather than of consumers.

There is considerable evidence that cooperative buying by farm families is increasing. Of the farm families reached in the 1938 survey preliminary to the next census, 17 percent made purchases cooperatively,

compared with 7 percent in the same counties in 1930. The proportion of farm owners making purchases cooperatively more than doubled in the 3-year period, rising from 9 to 19.5 percent; but the proportion of tenants buying cooperatively more than trebled, rising from 3.9 to 13.5 percent.

It is estimated that there were about 5,000 retail cooperative buying associations in the United States in 1937. At least half of these societies are believed to have sold goods for farm use and about half of this group in turn handled household goods in addition to farm supplies. Sales of all retail associations totaled almost \$300,000,000. Associations buying farm supplies transacted about two-thirds of this business. These farm-supply associations also enrolled about two-thirds of the total membership in all retail societies, which amounted to approximately 1,500,000 members in 1937.

While feed for livestock and poultry still makes up the largest dollar volume of cooperative purchasing by farmers, purchases of oil and gasoline are a close second. Insofar as these are used in car operation they contribute to farm family living as well as to the farm business. Some buying associations that originally handled only products for farm production have expanded their facilities to supply farm families with household supplies, such as electrical appliances and groceries. Furthermore, new cooperative associations have been formed or existing associations have undertaken to provide farm families with electricity, credit, insurance, health and medical services, and funerals, on a cooperative basis.

With the increasing number of agencies engaged in consumer education, the trend toward a better understanding of consumer problems by farm families and more efficient purchasing practices seems likely to continue in 1939.

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THE COTTON OUTLOOK FOR 1939

Summary

World Cotton Supply at New High

The 1938-39 world supply of commercial cotton is now (late October) expected to be about 51.4 million bales, which is 3 percent larger than the record supply of the previous season and 29 percent greater than the 10-year (1927-28 to 1936-37) average. This would be the third consecutive season in which world supplies reached a new high. The world carry-over of cotton of 23.1 million bales on August 1, 1938 was 9-3/4 million bales larger than a year earlier and 4-3/4 million bales larger than the previous peak of 1932. This marked increase in carry-over, however, is largely offset by a sharp reduction in the United States crop and some decline in foreign production.

The world supply of American cotton is expected to total about 25.7 million running bales which is materially larger than that of the previous season and nearly one-fifth larger than the 10-year average, but 2 percent less than the record supply of 1932-33. The estimated 1938 domestic production is 35 percent less than the record harvest of last season and 8 percent below average, yet the reduction this year was less than the increase in carry-over. At the beginning of the current season, the world carry-over of American cotton totaled 13.65 million bales compared with 6.2 million bales a year earlier. It was 62 percent above average and considerably larger than the previous peak reached in 1932.

Despite a prospective decline in foreign production of commercial cotton, the indicated 1938-39 world supply of foreign cotton is now estimated at 25.7 million bales of 478 pounds net weight. This is slightly larger than the record supply of the previous season, 40 percent above the 10-year average, and two-thirds larger than in 1932-33. Such a supply would make the sixth consecutive season in which the supply of foreign cotton reached a new record high. The world carry-over of 9.4 million bales of foreign cotton on August 1, 1938 was 33 percent larger than the record carry-over a year earlier, 64 percent above average, and nearly twice as large as in 1932. Although the 1938-39 foreign production of commercial cotton, now estimated at 16.25 million bales, is 10 percent less than the record crop of last season, it is 29 percent above the 10-year average and 55 percent larger than the 1932-33 crop. Present estimates indicate that much of the decrease in the 1938-39 production will result from a sharp decline in the Chinese crop and a greatly reduced Egyptian crop. While a substantial proportion of the net increase in foreign production compared with either the 10-year average or with 1932-33 has occurred in the larger producing countries, the increase which has resulted from the marked expansion in many other countries has also been important.

Should the acreage planted to cotton in the United States next spring total about the same as in 1938, this acreage with abandonment, yields per acre and bale weights equal to the average for the last 10 and 5 years (ending with 1937) would give a 1939 crop about nine-tenths to one and three-fourth million running bales smaller than the present estimate of the current seasons' production.

Although it seems probable that the world carry-over of American cotton, probably August 1, 1939, may be somewhat larger than a year earlier, such a crop would result in a 1939-40 world supply of American cotton not greatly different from that of the present season. The indications are that the carry-over of foreign cotton may increase somewhat, although it is quite possible that this may be about offset by a further decline in production.

World Cotton Consumption Shows Material Decline

Total world mill consumption of 26.4 million bales of cotton in 1937-38 was 15 percent below the record consumption of the previous season but was 0.8 million bales larger than the 10-year (1927-28 to 1936-37) average and the third largest in history. Of the 4.6-million-bale decline in world consumption last season, American cotton accounted for 2.2 million bales and foreign cotton for 2.4 million bales.

Partly as a result of larger supplies and lower prices of American cotton relative to foreign growths, last season's consumption of American cotton outside of the United States represented a slightly larger proportion of the total mill consumption of all growths than in the previous season. But, despite this, the quantity of American cotton consumed in foreign countries last season was slightly lower than in the previous season and the smallest since 1923-24. It was 27 percent below average. Largely because of the marked recession in general business conditions in the United States, domestic consumption of American cotton was smaller by nearly 2.2 million bales or 28 percent than the record consumption of the previous season and was 6 percent smaller than the 10-year average.

The decline of about 1.5 million bales or 50 percent in cotton consumption in China last season, chiefly because of the conflict with Japan, was equal to about two-thirds of the total decline in the mill consumption of foreign cotton. In most other foreign countries, consumption for the year ended July 31, 1938 was not materially below that of the preceding season despite a marked decline during the latter part of 1937 and the first half of 1938.

Cotton consumption in the United States during the first 2 months of the current season averaged considerably above the average for 1937-38. Furthermore, stocks of cotton textiles in channels of distribution were considerably below a year earlier. These factors, together with an expected improvement in domestic business conditions and consumer incomes, should result in a substantially larger United States consumption of cotton in 1938-39 than occurred in the past season.

In most foreign countries, however, cotton consumption in the early part of the current season was somewhat below the average for the last season and mill activity was being further curtailed. This and prospects for little improvement in general economic conditions in foreign countries during the first part of the current season and increased restrictions on cotton consumption in Japan make it seem probable that the total consumption of both American and other cotton in foreign countries would be lower during the 12 months ended July 1939 than in the past season. The European political crisis makes the cotton and cotton-textile outlook especially uncertain, but it is expected that an increase in United States consumption of American cotton may about offset

the prospective decline in the foreign consumption of this cotton. Furthermore, it seems probable that the 1938-39 foreign and, in turn, the world consumption of other cotton (other than American) may be about the same as in 1937-38.

Cotton Prices Decline - Gross Farm Returns from Cotton Decrease

The weighted average price of 8.4 cents per pound received by domestic cotton producers for lint in the 1937-38 season was 3.9 cents or 32 percent less than in the previous season, the lowest since 1932-33 and one-third less than the average for the 10 years ended July 1937. In August and September this year, farm prices of lint cotton averaged about 2 percent less and cottonseed approximately 9 percent more than in the 12 months ended July 1938. Should prices continue at about present levels during the next few months, this together with the fact that the quantities of cotton and cottonseed available for marketing during the current season are estimated at about one-third less than last season, would result in the gross farm returns from the 1938 cotton crop being materially less than the comparatively large returns received from the large 1937 crop and the smallest since 1932.

Farmers' 1938-39 returns from the disposition of their cotton crop will be supplemented by about \$265,000,000 of Government payments with respect to cotton, compared with \$72,000,000 of such payments last season. Nevertheless, the total farm returns from the 1938 cotton crop, including Government payments with respect to cotton, may be substantially below those of the previous season and considerably smaller than the 10-year average.

With the large 1937 crop and despite substantially lower prices, total farm returns of \$795,000,000 from lint cotton during the past marketing season were \$31,000,000 larger than in the previous season, the largest since 1929-30, and only 1 percent less than the 10-year average. Cottonseed prices were also much below those of 1936-37 and the lowest since 1933-34. Gross farm returns of \$123,000,000 from cottonseed, while lower than in the previous year, despite the large marketings, were larger than in any other year since 1929-30 and 19 percent larger than average.

The combined gross farm returns from cotton and cottonseed in 1937-38, excluding Government payments, were slightly larger than in the previous season, the largest in 8 years, and somewhat larger than the 10-year average. Including Government payments with respect to cotton, these returns were a little less than in 1936-37 but more than twice as large as in 1932-33 and considerably above average.

SUPPLY

World Carry-Over Greatly Increased: Reaches New High

The world carry-over of 23.1 million bales of all cotton at the beginning of the 1938-39 season was 9½ million bales or about 73 percent larger than a year earlier, more than one-fourth larger than the previous record carry-over of August 1, 1932 and nearly two-thirds greater than the 10-year (1927-36) average. A large proportion of the increase in total stocks during the 1937-38 season was accounted for by a rise of 7.4 million bales or 119 percent in American cotton, although the carry-over of foreign growths increased 2 1/3 million bales or 33 percent. The approximately 13.65 million bales of American cotton on hand throughout the world on August 1 last was considerably larger than the previous high reached in 1932 and 62 percent larger than the 10-year average. The large

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increase in the stocks of foreign cotton during the past season (largely because of gains in Indian and Chinese growths) raised such stocks above the record high of a year earlier and resulted in a total carry-over of foreign cotton which was 64 percent larger than the 10-year average.

The exceptionally large increase in the stocks of American and foreign cotton in the 1937-38 season was chiefly the result of the record production of these growths, the marked recession in general business activity and its effect on cotton consumption, the disrupted economic conditions in Japan and China, and the further impetus for the substitution of synthetic fibers for cotton because of nationalistic and military activities. In view of present prospects for consumption and production in 1938-39, it seems probable that the world carry-over of American and foreign cotton on August 1, 1939 will increase somewhat and is certainly not likely to show any considerable decline.

Cotton, commercial: World carry-over by growths, specified periods

Season beginning August 1	Egyptian	Indian	Sundry growths	Total foreign	American	All growths
	1,000 bales 1/	1,000 bales 1/	1,000 bales 1/	1,000 bales 1/	1,000 bales 1/	1,000 bales 1/
Average 1927-28 to 1936-37	1,110	2,583	2,067	5,760	8,454	14,214
1932-33	1,446	1,883	1,744	5,073	13,263	18,336
1933-34	1,088	2,534	1,685	5,307	11,809	17,116
1934-35	1,079	3,348	2,412	6,839	10,701	17,540
1935-36	827	2,494	2,710	6,031	9,041	15,072
1936-37	804	2,814	3,033	6,651	6,998	13,649
1937-38	701	3,209	3,168	7,078	6,235	13,313
1938-39 2/	1,090	3,226	5,113	9,429	13,652	23,081
1938-39 as per- centage:	Percent	Percent	Percent	Percent	Percent	Percent
of average	98.2	124.9	247.4	163.7	161.5	162.4
of 1937-38	155.5	100.5	161.4	133.2	219.0	173.4

Compiled from reports of the New York Cotton Exchange Service.

1/ American in running bales (counting round as half bales) and foreign in bales of approximately 478 pounds net.

2/ Preliminary.

World Production Greatly Decreased Largely Because of Decline in the United States

The world production of commercial cotton for the current season is expected in late October to be about 28.3 million bales, which is approximately 8.3 million bales or almost one-fourth less than the record production of 1937-38. Such a crop, however, would be about 10 percent larger than the 10-year (1927-36) average and the third largest in history. On the basis of present estimates,

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approximately three-fourths of the decrease in comparison with last season would be accounted for by a decrease of 6.4 million bales in the United States crop.

The 1938 United States crop which according to the October estimate of 12.2 million bales of 478 pounds net is expected to be equivalent to about 12.05 million running bales, including an allowance for the city crop. This is more than one-third smaller than the record 1937 crop and the smallest, with two exceptions (1934 and 1935), in 15 years. It is 1.1 million bales or 8 percent less than the 10-year average. The marked decrease in the current American crop as compared with that of 1937 is accounted for by a reduction of about one-sixth in the indicated yield per acre and one-fifth in acreage. The rather sharp decline in the 1938 harvested acreage reduced it to one-fourth less than the 10-year average and to the smallest figure since 1900. While the indicated average United States yield per acre is 46 pounds less than in 1937, it is higher than any other year since 1898 and 23 percent higher than the 10-year average yield. Although insect damage was greater than in the 2 preceding years, the high indicated yield of the current season, like that of those years, is probably largely accounted for by the use of more productive land and improved cultural practices.

The production of commercial cotton in foreign countries in 1938-39 is expected (in late October) to total about 16.25 million bales of 478 pounds net. This is approximately 1.9 million bales less than the record crop of the past season but is the third largest in history and is 3.675 million bales or nearly 30 percent larger than the 10-year average. The prospective decrease in the current crop in comparison with the 1937-38 production is largely accounted for by expected large decreases in China and Egypt, and small decreases in Northern Brazil and a number of the smaller producing countries. These same countries, together with Russia, account for a large proportion of the increase over the 10-year average. Should the total 1938-39 foreign production decline, as is now expected, the average rate of increase in foreign production since 1932 would be greatly reduced. But in spite of this, the annual rate of increase in the 6-year period, 1932-38, would average nearly 1 million bales. During the preceding 10 years, the annual rate of increase was 0.3 million bales and in the 25 years ending with 1932-33 was less than 0.2 million bales. The lower prices received for the 1937 cotton crop in most foreign countries and the unsettled conditions in China are important factors that have at least temporarily halted the marked increase in foreign production that has been under way since 1932.

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Cotton, commercial: World production by growths, specified periods

Season beginning August 1	Egyptian	Indian	Sundry growths	Total foreign	American	All kinds
	bales 1/	bales 1/	bales 1/	bales 1/	bales 1/	bales 1/
Average 1927-28 to 1936-37	1,000	1,000	1,000	1,000	1,000	1,000
1932-33	1,038	4,110	5,352	10,500	12,961	23,461
1933-34	1,739	4,834	6,781	13,354	12,712	26,066
1934-35	1,523	4,198	7,753	13,474	9,576	23,050
1935-36	1,758	5,323	8,744	15,825	10,495	26,320
1936-37	1,863	5,661	10,801	18,325	12,375	30,700
1937-38	2,245	2/4,942	10,964	18,151	18,412	36,563
1938-39 3/	1,596	2/4,880	9,774	16,250	12,050	28,300
1938-39 as per- centage:	Percent	Percent	Percent	Percent	Percent	Percent
of average	102.6	105.5	152.8	129.2	91.9	110.2
of 1937-38	71.1	98.7	89.1	89.5	65.4	77.4

Compiled from reports of the New York Cotton Exchange Service.

1/ American in running bales (counting round as half bales) and foreign in bales of approximately 478 pounds net.

2/ Excludes Burma.

3/ Preliminary.

Should the referendum held under the provisions of the Agricultural Adjustment Act of 1938 show that two-thirds or more of the cotton growers favor marketing quotas in 1939, acreage allotments will again be made to individual producers as in 1938. Should allotments, if made, be about the same as the total of 27.4 million acres allotted in 1938 and should farmers plant the same proportion of their allotment, next year's acreage would be approximately the same as in 1938. Such a planted acreage with abandonment, yields per acre and bale weights equal to the average for the 10 years, 1928-37, would give a crop (including an allowance for city crop) of 10-1/3 million running bales, and with averages equal to the 5 years 1933-37, 11.2 million bales.

The outlook with respect to cotton production in foreign countries is uncertain. The low prices being received for the current crop in most countries, and the possibility that in many countries other enterprises may prove considerably more remunerative relative to cotton production than in most of the past 5 years, may result in some reduction in the 1939-40 cotton acreage.

World Supply Again Reaches New High

The record world carry-over on August 1, together with the prospective 1938-39 production, gives an indicated world supply of all cotton of 51.4 million bales. This is 1.5 million bales larger than the 1937-38 supply and 11.5 million bales or 29 percent larger than the 10-year, 1927-28 and 1936-37 average. A supply such as is now indicated would result in the world supply reaching a new record high for the third consecutive year. Present (late October) estimates indicate absolute increases over the previous season of more than twice as much in the case of American as in foreign cottons. In comparison with the 10-year average (1927-36), however, the indicated supply of American cotton for the current season shows an absolute increase half as great as that of foreign growths.

The 1938-39 supply of American cotton is now estimated at 25.7 million running bales. While this is 4 percent larger than last season's supply, and nearly one-fifth larger than the 10-year average, it is one-half million bales less than the record supply of 1932-33 and one-sixth million bales less than that of 1931-32. On October 25, approximately 8,700,000 bales of the indicated total 1938-39 world supply of American cotton were reported as being held as collateral against Government loans on cotton. The deduction of such stocks from the indicated total world supply would give a supply of so-called "free" American cotton somewhat smaller than the supply of such cotton in either of the two preceding seasons and materially smaller than the 10-year average. Present market prices in relation to the 1938-loan values, together with an increase of 1,700,000 bales in the reported loan stocks during the 5 weeks ended October 25, and the fact that a substantial proportion of the 1938 crop is still in the possession of farmers, suggest that the supply of "free" American cotton may be further reduced by a substantial quantity.

The estimated 1938-39 world commercial supply of foreign grown cotton, of 25.7 million bales, is 2 percent higher than that of last season, 7.3 million bales or 40 percent above the 10-year (1927-28 to 1936-37) average and 10.1 million bales or 65 percent larger than in 1932-33. A supply such as now indicated would make the sixth consecutive year in which foreign cotton reached a new record high.

By far the greater part of the increase in the supply of foreign cotton in the last 5 or 6 years has occurred in sundry growths (foreign cotton other than Indian and Egyptian). A considerable part of this increase, in turn, has been due to increased production in Russia, where there has been an approximately corresponding increase in mill consumption. Supplies of Brazilian cotton have also increased greatly during the last several years as has the supply of cotton grown in many of the smaller producing countries. The production and supply of Chinese cotton increased greatly between 1932 and 1936 but has since declined materially.

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Cotton, commercial: World supply by growths, specified periods

Season							
beginning	Egyptian:	Indian	Sundry	Total	American:	All	
August 1				foreign		kinds	
	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>
Average	<u>bales 1/</u>	<u>bales 1/</u>	<u>bales 1/</u>	<u>bales 1/</u>	<u>bales 1/</u>	<u>bales 1/</u>	<u>bales 1/</u>
1927-28 to							
1936-37	2,666	7,207	8,462	18,335	21,564	39,899	
1932-33	2,485	5,994	7,094	15,573	26,224	41,797	
1933-34	2,829	7,368	8,464	18,661	24,521	43,182	
1934-35	2,604	7,546	10,163	20,313	20,277	40,590	
1935-36	2,586	7,817	11,453	21,856	19,536	41,392	
1936-37	2,668	8,475	13,833	24,976	19,373	44,349	
1937-38	2,946	8,151	14,132	25,229	24,647	49,876	
1938-39 <u>3/</u>	2,686	8,106	14,887	25,679	25,702	51,381	
1938-39 as	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
percentage of							
Average	100.8	112.5	175.9	140.1	119.3	128.8	
1937-38	91.2	99.4	105.3	101.8	104.3	103.0	

Compiled from reports of the New York Cotton Exchange Service.

1/ American in running bales (counting round as half bales) and foreign in bales of approximately 478 pounds net.2/ Excludes cotton produced in Burma.3/ Preliminary.

Although prospects point to some increase in the carry-over during the current season, the total world supply of cotton for 1939-40 may not be greatly different from that of the present season. For reasons already mentioned (see production section), there is some possibility that the 1939-40 foreign acreage may be slightly below 1938-39. While the 1939 United States acreage may be about the same as in 1938, average yields per acre might easily result in a crop considerably smaller than that of the current season.

ConsumptionWorld Mill Consumption Below Average

World cotton consumption in 1937-38 of 26,430,000 bales was 15 percent less than the record consumption last season but 3 percent more than the average for the 10 years ended with 1936-37. World consumption of 10,930,000 bales of American cotton was 16 percent less than a year earlier and 17 percent less than the 10-year average. In the United States, consumption of American cotton decreased about 2,200,000 bales or 28 percent from the new high record for the preceding season. In foreign countries, however, consumption of American cotton was about the same as in the previous season, but was about 27 percent less than

average. World consumption of cotton other than American in 1937-38 was about 15,500,000 bales, which was about 13 percent less than in the previous season, but was still one-fourth more than the 10-year average. Although consumption of Indian and Egyptian cotton has increased in recent years, most of the substantial increase in consumption of foreign cottons since 1932-33 has been in sundry growths. Last season, however, consumption of Chinese cotton in China was down about 1,500,000 bales or approximately 50 percent from the record consumption of the previous season, and this drop accounted for about two-thirds of the decline in the world consumption of foreign cotton. But consumption of other sundries cotton apparently continued to increase and sundry cottons other than Brazilian, Chinese, and Russian constituted, in the aggregate, about a fifth of the total increase in sundries for 1937-38, as compared with the 10-year average.

Cotton: Mill consumption in the world

Season	United States			Foreign countries			World		
beginning:									
August 1	American	Foreign	Total	American	Foreign	Total	American	Foreign	Total
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Average	bales	bales	bales	bales	bales	bales	bales	bales	bales
1927-28	1/	1/	1/	1/	1/	1/	1/	1/	1/
to									
1936-37	5,973	193	6,166	7,264	12,154	19,418	13,237	12,347	25,584
1933-34	5,553	147	5,700	8,227	11,675	19,902	13,780	11,822	25,602
1934-35	5,241	120	5,361	5,965	14,162	20,127	11,206	14,282	25,488
1935-36	6,221	130	6,351	6,282	15,075	21,357	12,503	15,205	27,708
1936-37	7,768	182	7,950	5,325	17,716	23,041	13,093	17,898	30,991
1937-38 2/	5,616	141	5,757	5,314	15,359	20,673	10,930	15,500	26,430
1937-38 as percentage of 10-year average and of 1936-37									
10-yr. av:	94.0	73.1	93.4	73.2	126.4	106.5	82.6	125.5	103.3
1936-37	72.3	77.5	72.4	99.8	86.7	89.7	83.5	86.6	85.3

1/ American cotton in running bales and foreign in equivalent bales of 478 pounds net weight.

2/ Preliminary.

Bureau of Agricultural Economics. Compiled from reports of the New York Cotton Exchange Service.

In the United States, the decrease in industrial activity, employment, payrolls, and general purchasing power, which began in the late summer and early fall of 1937, was an important factor in the sharp reduction in domestic and in world consumption of American cotton. But large stocks of cotton goods in channels of distribution in the United States at the beginning of last season also tended to restrict mill sales of unfinished cloth and yarn.

In foreign countries, the recession in business was not nearly so pronounced and came later than in the United States. In many of these countries, armament manufacturing helped to sustain consumer purchasing power and mill consumption of cotton. But military operations in China resulted in a drastic reduction of cotton consumption there and in Japan during the latter part of the season. Increased production of rayon yarn and staple fiber, especially in Germany, Italy, and Japan displaced considerable cotton and resulted in a smaller consumption of all growths.

Cotton Outlook

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On the basis of present conditions, total world consumption in 1938-39 is not expected to exceed that for last season and may be considerably smaller. Present indications are that consumption of American cotton in the United States will increase during 1938-39 but this will be about offset by decreases in the use of American in Europe and Japan. World consumption of foreign growths may about equal that for last season. Information now available points to decreases in Japan and in Europe, except in Russia, but these may be counter-balanced by a substantial increase in Chinese consumption and some further expansion in India, Russia and in a few other less important cotton-consuming countries.

United States Consumption Expected to Increase in 1938-39

Consumption of about 5,800,000 bales of cotton in the United States in 1937-38 was the smallest since 1934-35. It was 28 percent less than the unusually large consumption in the previous season but only 7 percent less than the average for the 10 years ended with 1936-37. Although consumer-buying of cotton textiles decreased during the 1937-38 season, stocks of finished goods in channels of distribution are now considerably smaller than a year ago. And with prospects for increased industrial activity and payrolls, larger cloth sales by mills are expected in 1938-39 than in the previous season. Mill activity for the first 2 months of the current season was substantially above the low point reached in the last half of the previous season and above the average for the previous season but was below the comparatively high level for the corresponding months a year earlier. On the basis of these conditions, the probabilities are that consumption in the United States in 1938-39 will exceed that for last season, and may equal or exceed the 10-year average.

Foreign Consumption Expected to Decrease Further in 1938-39

Total mill consumption in foreign countries of about 21,000,000 bales in 1937-38 was 10 percent less than in the previous season but about 7 percent more than the average for the 10 years ended with 1936-37. Consumption of 5,300,000 bales of American cotton outside the United States last season was approximately the same as in 1936-37 but 27 percent less than the 10-year average. Total consumption other than American cotton in these countries of 15,400,000 bales was 13 percent less than in the previous season but about one-fourth more than average. American cotton was 26 percent of the total consumption outside the United States in 1937-38, against 23 percent in the previous year and 37 percent during the 10-year period 1927-36. Increased competition from rayon has reduced the total consumption of cotton, especially in some of the most important cotton-consuming countries but substitution of foreign growths for American has accounted for the sharply reduced proportion of American cotton used in foreign mills during recent years.

Total cotton consumption in foreign countries in 1938-39 is expected to be somewhat smaller than last season but the outlook in both Europe and the Orient is very uncertain.

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Cotton: Mill consumption in principal foreign regions

Season beginning:	Europe			Orient			Elsewhere		
Aug. 1	American	Foreign	Total	American	Foreign	Total	American	Foreign	Total
	bales	bales	bales	bales	bales	bales	bales	bales	bales
Average	1/	1/	1/	1/	1/	1/	1/	1/	1/
1927-28									
to									
1936-37	5,143	5,255	10,398	1,874	6,027	7,901	247	872	1,119
1933-34	5,633	5,043	10,676	2,321	5,779	8,100	273	853	1,126
1934-35	3,680	6,055	9,735	2,032	7,009	9,041	253	1,098	1,351
1935-36	4,258	6,708	10,966	1,757	7,264	9,021	267	1,103	1,370
1936-37	3,596	7,944	11,540	1,420	8,593	10,013	309	1,179	1,488
1937-38 2/	3,698	7,400	11,098	1,322	6,700	8,022	294	1,259	1,553
	1937-38 as percentages of 10-year average and of 1936-37								

10-yr. av.: 71.9 : 140.8 : 106.7 : 70.5 : 111.2 : 101.5 : 119.0 : 144.4 : 138.8

1936-37 : 102.8 : 93.2 : 96.2 : 93.1 : 78.0 : 80.1 : 95.1 : 106.8 : 104.4

1/ American cotton in running bales and foreign in equivalent bales of 478 pounds net weight.

2/ Preliminary.

Bureau of Agricultural Economics. Compiled from reports of the New York Cotton Exchange Service.

Europe. - Total consumption of cotton in Europe during 1937-38 was 11,098,000 bales or slightly less than the unusually large consumption in the previous season and about 7 percent more than the 10-year average. Consumption of American cotton increased a little in 1937-38 but was 28 percent less than average. Consumption of foreign cotton was down about half a million bales or 7 percent from the previous season but was about two-fifths more than average. American cotton regained some of the ground lost to other growths during recent years, due to lower prices and larger supplies relative to foreign growths in 1937-38 than in the previous season. Exports from the United States to European countries increased substantially and current European stocks of American cotton are considerably larger than a year ago. Rayon is expected to displace larger quantities of cotton this season, since forced substitutions are likely to continue in some of the major cotton-consuming countries. Present indications are that consumption of cotton, particularly American in Europe in 1938-39 will not exceed that for the previous season, and it may be considerably smaller.

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Cotton: Mill consumption in Europe

Season	United Kingdom			Continent			Continent, excluding Russia		
beginning:									
Aug. 1	American	Foreign	Total	American	Foreign	Total	American	Foreign	Total
	bales	bales	bales	bales	bales	bales	bales	bales	bales
Average	1/	1/	1/	1/	1/	1/	1/	1/	1/
1927-28	:	:	:	:	:	:	:	:	:
to	:	:	:	:	:	:	:	:	:
1936-37	1,369	1,318	2,687	3,774	3,937	7,711	3,617	2,096	5,713
	:	:	:	:	:	:	:	:	:
1933-34	1,403	1,256	2,659	4,230	3,787	8,017	4,150	1,902	6,052
1934-35	941	1,650	2,591	2,739	4,405	7,144	2,704	2,556	5,260
1935-36	1,295	1,541	2,836	2,963	5,167	8,130	2,874	2,805	5,679
1936-37	1,150	1,887	3,037	2,446	6,057	8,503	2,446	2,909	5,355
1937-38 2/	1,144	1,400	2,544	2,554	6,000	8,554	2,554	2,900	5,454
	1937-38 as percentages of 10-year average and of 1936-37								
10-yr.av.:	83.6	106.2	94.7	67.7	152.4	110.9	70.6	138.4	95.5
1936-37	92.5	74.2	83.8	104.4	29.1	100.6	104.4	92.7	101.8

1/ American cotton in running bales and foreign in equivalent bales of 478 pounds net weight.

2/ Preliminary.

Bureau of Agricultural Economics. Compiled from the reports of the New York Cotton Exchange Service.

In the United Kingdom, total consumption of 2,500,000 bales in 1937-38 was 16 percent less than in the previous year and about 5 percent smaller than the 10-year average. American cotton was 45 percent of the total in 1937-38, against 38 percent in the previous season and 51 percent during the 10-year period ended with 1936-37. British exports of cotton cloth during 1937-38 were 20 percent less than the preceding season and 36 percent smaller than the 10-year average. Although cotton-textile exports may increase a little in 1938-39, there is little hope now for a substantial improvement this season. Sales of cotton textiles within the United Kingdom in 1937-38 were fairly well sustained but some concern is expressed in current reports about sales in the domestic market during 1938-39. Considering prospects for both exports and for the home market, early-season indications are for total cotton consumption about equal that for last season but American cotton may share a somewhat smaller percentage of the total than in 1937-38.

On the Continent of Europe, total mill consumption was 8,600,000 bales in 1937-38, or slightly larger than that for 1936-37 and about 11 percent more than the 10-year average. Consumption of foreign cotton has increased substantially, whereas consumption of American has decreased during recent years. Consumption of American cotton was 2,600,000 bales in 1937-38 or 30 percent of the total, against 29 percent in the previous year and 49 percent during the 10 years ended with 1936-37. Cotton consumed on the Continent of Europe, except in Russia, is nearly all imported. Excluding Russia, the consumption of American cotton on the Continent was 47 percent of the total last season, against 46 percent in 1936-37 and 63 percent during the 10 years 1927-36.

It seems probable that total consumption of cotton in Europe would have been considerably larger last season than in other recent years, had not substantial quantities of rayon been used in clothing and household articles in these countries. While rayon has been a factor, the use of foreign cotton has accounted for most of the decline in the consumption of American cotton. Special trade arrangements between certain importing countries and a few foreign cotton-producing countries, during the last few years, tended to increase the use of foreign cotton relative to American in these importing countries. But it seems probable that even without these arrangements almost all of the substantially increased supplies of foreign growths would have found their way into world mills, although prices received by producers of the growths involved in barter arrangements probably would have been somewhat less favorable.

The situation on the Continent of Europe is currently so uncertain that the outlook for cotton consumption there cannot be stated with much hope of accuracy. At best, however, there seems little prospect to an increase in the total consumption of cotton in continental Europe in 1938-39 over 1937-38.

The Orient. - Mill consumption of only 8,000,000 bales of cotton in the Orient was about 2,000,000 bales less than in the previous season but a little more than the 10-year average. Consumption of American cotton was slightly smaller than in the previous season and 30 percent less than the 10-year average. Most American cotton consumed in the Orient is utilized in Japanese mills, since those in China and India mainly use native cotton. In 1937-38 there was a slight decrease in the consumption of American cotton in Japanese mills but this was more than offset by a large percentage but small actual increase in consumption by Indian mills and a slight increase in Chinese mills. Consumption of foreign growths decreased a little over 500,000 bales in Japan and 1,500,000 bales in China during 1937-38 as compared with the previous season. Despite the military disturbances in China, consumption in that country is expected to increase in 1938-39 but is likely to be substantially less than in 1936-37, and total consumption in the Orient in 1938-39 may be almost equal to that for 1937-38.

In Japan, the consumption of about 3,200,000 bales in 1937-38 was about 19 percent less than the record consumption in 1936-37 but 4 percent more than the 10-year average. Consumption of American cotton decreased slightly and represented about 38 percent of the total, against 35 percent in the previous season and 47 percent for the 10 years 1927-36. Indian cotton is still the principal competitor of American cotton in Japan but imports of sundries have increased substantially in recent years, comprising 30 percent of the total in 1937-38, against a 10-year average of 8 percent.

Japan, in recent years, has become the world's leading producer of rayon, and Government decrees issued in the summer of 1938 apparently require the use of rayon in most textiles for consumption in Japan and in other areas under Japanese control. This would seem to indicate that considerably more cotton may be displaced by rayon in 1938-39 than in other recent years. Cotton textile exports from Japan slumped during the late summer and fall months, and although some increase from present low levels is anticipated, total cloth exports probably will be smaller in 1938-39 than for last season. These, along with severely reduced stocks of all growths of cotton in Japan and current shortages of foreign exchange, seem likely to hamper consumption this season, and the total is likely to be substantially less than last season.

Cotton: Mill Consumption in the Orient

Season :	Japan :			China :			India :		
beginning :									
Aug. 1 :	American	Foreign	Total	American	Foreign	Total	American	Foreign	Total
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	<u>bales</u>	<u>bales</u>	<u>bales</u>	<u>bales</u>	<u>bales</u>	<u>bales</u>	<u>bales</u>	<u>bales</u>	<u>bales</u>
Average :	<u>1/</u>	<u>1/</u>	<u>1/</u>	<u>1/</u>	<u>1/</u>	<u>1/</u>	<u>1/</u>	<u>1/</u>	<u>1/</u>
1927-28 :									
to :									
1936-37 :	1,438	1,643	3,081	363	2,021	2,384	68	2,064	2,132
1933-34 :	1,857	1,432	3,289	423	1,981	2,404	41	2,061	2,102
1934-35 :	1,737	1,911	3,648	247	2,313	2,560	39	2,388	2,427
1935-36 :	1,619	1,930	3,549	83	2,358	2,441	34	2,454	2,488
1936-37 :	1,367	2,562	3,929	21	3,040	3,061	13	2,450	2,463
1937-38 2/ :	1,200	2,000	3,200	30	1,500	1,530	75	2,700	2,775
	1937-38 as percentages of 10-year average and of 1936-37								
10-yr. av. :	83.4	121.7	103.9	8.3	74.2	64.2	110.3	130.8	130.2
1936-37 :	87.8	78.1	81.4	142.9	49.3	50.0	576.9	110.2	112.7
1/ American cotton in running bales and foreign in equivalent bales of 478 pounds net weight.									
2/ Preliminary.									
Bureau of Agricultural Economics. Compiled from the reports of the New York Cotton Exchange Service.									

In China, mill consumption of growths other than American, principally Chinese cotton, decreased to about 1,500,000 bales in 1937-38, which was only about half as much as the record consumption in the previous year and about three-fourths of the 10-year average. Consumption of American cotton increased a little but continued much smaller than the 10-year average. On the basis of present conditions in China, total consumption is expected to increase in 1938-39 and it may equal or even exceed the 10-year average but it is likely to be much less than the peak consumption for 1936-37.

In India, total mill consumption of 2,800,000 bales during 1937-38 was about an eighth more than in the previous year and nearly a third larger than the 10-year average. Since displacements of imported cotton textiles by the output of Indian mills is expected to continue, total mill consumption in India in 1938-39 will probably be at least as large as in the previous season.

Other countries. - Foreign countries outside Europe and the Orient consumed about 1,600,000 bales (preliminary estimate) in 1937-38, which was the largest on record and about two-fifths more than the 10-year average. Consumption of American cotton, most of which was in Canada, decreased slightly, but almost one-fifth larger than the 10-year average. Consumption of cotton other than American increased and was more than two-fifths larger than average. Increases in consumption of native cotton in Brazil, Mexico, and the less important cotton-producing countries of North and South America accounted for most of the increase in the consumption of cotton other than American last season in "other countries", as compared with the previous season and the 10-year average. And the upward trend in consumption of these growths seems likely to continue next season.

Price and IncomeCotton prices decline

The average price of 8.66 cents for Middling 7/8 inch cotton in the 10 designated markets for the 1937-38 season was 4.04 cents per pound lower than in the previous season and 3.76 cents below the average for the 10 years 1927-36. The weighted average price received by growers during the 1937-38 season of approximately 8.4 cents was 3.9 cents lower than for the previous season and 3.9 cents below the 1927-36 average. The decline in cotton prices was associated with a substantial increase in the supplies of both American and foreign-grown cottons, a severe recession in general business activity, a sharp reduction in cotton mill activity, and marked declines in prices of other raw materials. In August and September 1938 prices in the 10 markets averaged 1.24 cents lower than in the corresponding period a year earlier. Early in the 1938-39 season prices of futures contracts declined in relation to prices of spot cotton, reflecting the strengthening influence of the Government loan on spot prices. Such an advance in the basis tends to increase the hazards of accumulating and carrying stocks of cotton.

Prices of Indian, Egyptian, and Brazilian cottons declined relatively less than prices of American in Liverpool and in 1937-38, were somewhat higher in relation to American than in the previous season, and considerably higher than the average for the 10 years 1927-36. During the first 2 months of the 1938-39 season Liverpool prices of American cotton were slightly higher in relation to prices of Indian, Egyptian, and Brazilian cottons than in the 1937-38 marketing season, but were somewhat lower in relation to prices of important foreign-grown cottons than on the average for the 10 years 1927-36. As prices of cotton of one growth increase or decrease in relation to prices of other growths, consumption of the relatively cheap cotton tends to increase in relation to the total consumed. Such shifts in consumption tend to readjust the comparative prices of the various growths in line with their difference in quality or spinning utility. Over periods of time long enough for adjustments to be made, price differentials depend on the differences in spinning utility and the relative quantities consumed depend on the relative quantities produced. These adjustments in prices to differences in spinning utility and in consumption to quantities produced apply not only to different growths insofar as they represent differences in quality but also to cotton of different qualities of the same growth.

Cotton: Spot price per pound of specified growths at Liverpool

Season beginning August 1	Actual prices of spot cotton				As a percentage of American Middling		
	American:	Indian:	Egyptian:	Brazilian:			
	Middling:	Average:	Uppers:	Sao Paulo:	Indian:	Egyptian:	Brazilian:
	7/8	of 3	F.G.F.	Fair	1/		
	inch	types					
	Cents	Cents	Cents	Cents	Percent	Percent	Percent
Average							
1927-28 to							
1936-37	14.50	10.88	17.12	14.08	78.3	117.9	97.7
1932-33	8.52	7.14	10.61	8.61	86.6	125.2	101.0
1933-34	12.47	8.87	13.77	12.28	74.0	110.8	98.8
1934-35	14.24	10.02	15.49	13.86	72.3	108.8	97.4
1935-36	13.50	10.36	15.49	13.45	79.5	114.8	99.8
1936-37	14.62	11.07	17.40	14.12	79.8	119.0	96.6
1937-38	10.31	8.02	13.10	10.18	83.9	126.7	98.7
1938-39 2/	9.68	7.22	12.28	9.36	80.0	127.0	96.8
1938-39 as	Percent:	Percent:	Percent:	Percent:	Percent:	Percent:	Percent:
a percentage							
of average	66.8	66.4	71.7	66.5	102.2	107.7	99.1
of 1937-38	93.9	90.0	93.7	91.2	95.4	100.2	98.1

1/ As a percentage of American Middling and Low Middling.

2/ Prices for August and September.

Computed from reports of the Liverpool Cotton Association.

Farm returns from cotton decreases

Should cotton prices continue at about present levels, such prices together with the greatly reduced 1938 crop would result in the gross farm returns from cotton in 1938-39, including Government loans and payments with respect to cotton, being substantially less than in 1937-38, and considerably smaller than the 10-year average. Excluding Government payments but including returns from Government loans, total farm returns from the disposition of the 1938 crop would be less than for any crop since 1932. Government loans to cooperating producers on the 1938 crop are provided on the basis of 8.30 cents per pound for Middling 7/8 inch cotton with specified premiums and discounts for cotton of other eligible grades and staple lengths. Should the proportion of the various grades and staple lengths for the 1938 crop be approximately the same as for the 1937 crop, the qualities specified as being eligible for the loan would include about 90 percent of the crop. The 1938 Agricultural Conservation payments are at the rate of 2.4 cents per pound on the normal yield of the cooperating producers 1938 cotton acreage allotment. In addition, price adjustment payments which will average about 2.9 cents per pound on 60 percent of each cooperating producers' 1937 cotton base production are being paid during the 1938-39 marketing season. Total Government payments with respect to cotton during the 1938-39 season will amount to approximately \$265,000,000 compared with \$72,000,000 last season and the previous record payments of \$180,000,000.

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With an increase of about 53 percent in the size of the United States crop, gross returns to farmers from cotton and cottonseed in the 1937-38 marketing season were slightly larger than in the previous season, despite the decrease in prices, and about the same as the average for the 10 years 1927-36. The combined returns to cotton growers from cotton and cottonseed, together with Government payments with respect to cotton, in 1937-38 was slightly less than in the previous season, more than twice as large as in 1932-33 and about 9 percent larger than the average for the 10 years 1927-36. When adjusted for changes in prices of things farmers buy, gross returns from cotton and cottonseed in 1937-38, including Government payments, was about 3 percent larger than that of the previous season and almost 10 percent above the 10-year average.

Cotton: Domestic prices and returns, specified periods

Season beginning August 1	Spot prices of lint		Gross returns during marketing season				
	Weighted average received by producers	Average for 10 desig- nated markets	Cotton lint	Cotton- seed	Gov- ernment pay- ments	Total, including Gov- ernment payments	Adjusted to the 1910-14 level of prices paid by farmers
	Cents per pound	Cents per pound	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars
Average							
1927-28 to:							
1936-37	12.3	12.42	803.6	103.2	----	906.8	715.0
1933-34	10.2	10.81	630.0	48.5	179.7	852.2	727.3
1934-35	12.4	12.36	629.1	105.9	115.8	850.8	675.2
1935-36	11.1	11.55	590.2	105.0	160.2	855.4	701.2
1936-37	12.3	12.70	764.4	141.3	86.4	992.1	763.1
1937-38 2/	8.4	8.66	795.0	123.0	72.1	990.1	785.8
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1937-38 as							
percentage							
of average	68.3	69.7	98.9	119.2	---	109.2	109.9
of 1936-37	68.3	68.2	104.0	87.0	83.4	99.8	103.0
1/ Payments with respect to cotton.							
2/ Preliminary.							

Staple Situation

The domestic supply of American Upland cotton of staples 7/8 inch and shorter for the 1938-39 season apparently will be considerably less than in the previous season and somewhat less than the average for the 10 years 1928-37. (The only 10-year period for which such data are available). In addition, the total supplies of Indian and Chinese cottons for the 1938-39 season are expected to be somewhat less than in the previous season, with the result that the total world supplies of cotton with staples 7/8 inch and shorter in 1938-39 probably will be considerably smaller than for the previous season and somewhat smaller than the 10-year average.

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Cotton: Domestic Supply 1/ by Staple lengths of American Upland

Year beginning August 1	Staple length (inches)						
	Shorter than	7/8 and	15/16 and	1 and	1-1/16 and	1-1/8 and	1-3/16 and
	7/8	29/32	31/32	1-1/32	1-3/32	1-5/32	longer
	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	bales	bales	bales	bales	bales	bales	bales
Average 1928-29 to 1937-38	1,787	6,802	4,803	3,074	1,482	958	287
1933-34	723	6,990	6,197	3,795	1,492	1,204	320
1934-35	1,017	6,017	4,168	2,894	1,503	1,233	278
1935-36	1,843	6,004	4,434	2,679	1,399	906	264
1936-37	1,713	5,432	3,876	3,464	1,780	923	266
1937-38	2,441	6,835	5,898	4,186	1,934	1,106	218
1938-39 <u>2/</u>	<u>1,863</u>	<u>6,038</u>	<u>6,269</u>	<u>5,048</u>	<u>3,158</u>	<u>956</u>	<u>315</u>
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1938-39 as:							
Percentage:							
of average:	104.3	88.8	130.5	164.2	213.1	99.8	109.8
of 1937-38:	<u>76.3</u>	<u>88.3</u>	<u>106.3</u>	<u>120.6</u>	<u>163.3</u>	<u>86.4</u>	<u>144.5</u>

1/ Carry-over plus estimated production.2/ Preliminary estimate, based on information available early in October.

The indicated domestic supply of American Upland cotton with staples 15/16 inch to 1-3/32 inches for the 1938-39 season showed a substantial increase over that of the previous season and is about 55 percent larger than the 10-year average. The slight decrease in indicated supply of medium staple American Upland cotton for the 1938-39 season is expected to be supplemented by increases in supplies of Brazilian, Russian, and other foreign grown cottons of medium staple lengths, with the result that the total world supply of these lengths is expected to be substantially larger in 1938-39 than for any other year of record.

The indicated 1938-39 domestic supply of American cotton with staples 1-1/8 inches and longer is slightly smaller than in the previous season and about the same as the 10-year average. This decrease in supply of long-staple American cotton, with prospects of some decrease in supplies of Egyptian cotton, is expected to give a world total supply of these lengths for the 1938-39 season considerably smaller than in 1937-38 and about the same as average.

Discounts for 13/16 inch staple early in the 1938-39 season were somewhat less than a year ago but were about 65 percent larger than the average for the 10 years 1927-36 despite the substantially reduced price level. Prices of Indian relative to American cotton at Liverpool were somewhat lower early in the 1938-39 season than in the previous season but were slightly higher than the 10-year average. The relatively large world total supplies of short staples is conducive to a continuation of relatively wide discounts for short staples throughout most of the current season.

Cotton Outlook

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Premiums for staples 15/16 inch to 1-1/16 inches, inclusive, continued to decrease with the decline in cotton prices and early in the 1938-39 season averaged 20 percent smaller than in the previous season and 32 percent smaller than the 1927-36 average. Early in the 1938-39 season prices of Brazilian Sao Paulo Fair relative to American Middling in Liverpool were somewhat lower than in the previous season and slightly lower than the 10-year average.

Premiums for staples 1-1/8 inches and longer were well maintained despite the decline in cotton prices and early in the 1938-39 season averaged somewhat greater than during the 10 years 1927-36. If the rate of general industrial production and payrolls increase as now seems probable, any improvements in the demand for fine clothing and for industrial goods requiring long-staple cotton, as a result of these increases, would be favorable to maintaining relatively high premiums for the longer stapled cotton during the 1938-39 season despite increased competition of rayon.

Cotton: Staple Premiums and Discounts from Prices of 7/8 inch

Year beginning August 1	Discount for 15/16 1/	Prices of Mid. 7/8 2/	15/16	1	Premiums 3/ 1-1/16	1-1/8	1-3/16	1-1/4
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Av. 1927-28 to 1936-37	0.60	12.42	0.38	.88	1.38	2.01	3.02	5.52
1933-34	.23	10.81	.22	.62	1.10	1.55	2.69	5.12
1934-35	.36	12.36	.32	.81	1.15	1.40	2.36	4.79
1935-36	.39	11.55	.36	.85	1.21	1.68	2.51	4.60
1936-37	.84	12.70	.67	1.36	2.00	3.36	4.34	5.54
1937-38	1.03	8.66	.39	.73	1.13	2.43	3.95	5.48
1938-39 4/	.99	8.24	.30	.56	.94	2.12	4.02	5.66
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1938-39 as percentage of average of 1937-38	165.0	66.3	78.9	63.6	68.1	105.5	133.1	102.5
	96.1	95.2	76.9	76.7	83.2	87.2	101.8	103.3

1/ Average discount at Houston, Galveston, and New Orleans prior to season 1937-38. Beginning 1937-38, ten-market average used.

2/ Ten-market average.

3/ Average premiums at Memphis.

4/ Average for August and September.

The relatively wide premiums and discounts for staples in central markets along with the premiums and discounts provided in the 1938 Government loan to growers, developments in connection with a classification service to growers in communities organized for quality improvement, and increased available supplies of planting seed of improved longer stapled varieties are favorable to further improvements in the staple length of American cotton in 1939.

THE COTTONSEED OUTLOOK FOR 1939

Summary

The United States supply of cottonseed for the 1938-39 season is now (early October) expected to be about 5.8 million tons, which is about one-third less than the record supply of the previous season and 4 percent less than the average for the 10 years, 1927-28 to 1936-37.

Oil mill stocks of cottonseed at the beginning of the season were at record levels but these larger stocks will be much more than offset by the sharp reduction in the size of the 1938 cotton crop. Total stocks of cottonseed oil and of linters and mill stocks of other cottonseed products on August 1 were also at exceptionally high levels but production during the marketing season will probably be some 30 to 35 percent smaller than during the preceding season. Since stocks of all cottonseed products, except linters, on August 1 were a comparatively small percentage of probable production, the supplies of these products for the current season will also be very materially smaller than the record supplies of 1937-38.

On the other hand, the indicated supply of feed grains which materially affects the price of cottonseed cake and meal and hulls is 6 percent larger than in 1937-38 and 13 percent larger than the 10 year average. Furthermore, the indications are that the domestic supply of fats and oils other than cottonseed oil for the 12 months ending July 31, 1939, may be somewhat larger than in the preceding 12 months.

The larger supplies of the important competitive products and the lower level of general demand conditions largely account for the fact that current prices of cottonseed and cottonseed products are only slightly higher to considerably lower than last season, despite the materially smaller supply of most of these commodities for the current season. It is expected that the consumption of cottonseed products during the 1938-39 season will be considerably larger than production with a consequent reduction in stocks on August 1, 1939.

Cottonseed Oil

The domestic supply of cottonseed oil (exclusive of imported cottonseed oil), the principal product of cottonseed (which on the average represents about one-half of the total value of all raw cottonseed products), for the 1938-39 season as now estimated is 22 percent smaller than the record supply of the preceding season and slightly smaller than the average for the 10-year period 1927-28 to 1936-37. This decrease might have been considerably greater except for the fact that August 1 stocks were considerably larger than a year earlier and the fourth largest in history. Despite the decrease in the indicated United States supply of cottonseed oil, prices of cottonseed oil in the early part of the current season were only slightly higher than the average for the preceding season. Prices of lard, an important competitor of cottonseed oil, however, averaged 15 percent lower in August and September 1938 than during the 12 months ended July 1938. The commercial supply of lard for the 12 months ending July 1939 is now tentatively estimated to about 8-1/2 percent larger than in the preceding 12 months and the largest in 5 years.

Cottonseed Outlook

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Supply and price of cottonseed and specified fats and oils in the United States

Season beginning August 1	Cottonseed		Cottonseed		Lard		Corn, soybean, peanut cocoanut and palm oils		
	Weighted Supply	average farm price	Supply 2/ price	Price of prime summer yellow	Supply of 3/ refined Chicago	Price of per Dols.	Produc- tion plus net imports	Stocks on July 1	Avail- able supply
	1,000 tons	Dollars per ton	Million pounds	Cents per lb.	Million pounds	Dols. per 100 lbs.	Million pounds	Million pounds	Million pounds
Average									
1927-28 to									
1936-37	5,977	25.69	1,909.4	7.95	1,541.8	10.95	1,096.3	288.0	1,384.3
1932-33	6,084	10.35	2,150.9	4.32	1,784.6	6.30	926.4	330.1	1,256.5
1933-34	6,027	14.21	2,081.3	4.92	1,734.2	6.97	1,118.1	286.0	1,404.1
1934-35	4,505	34.79	1,849.2	9.60	1,070.9	13.20	1,005.1	333.6	1,338.7
1935-36	4,819	31.19	1,670.3	9.82	890.1	13.36	1,411.0	324.4	1,735.4
1936-37	5,533	33.27	1,726.0	10.42	995.5	13.07	1,408.2	362.5	1,770.7
1937-38	8,468	19.50	2,451.4	7.78	1,088.0	10.58	1,475.7	356.3	1,832.0
1938-39 4/	5,752	21.26	1,900.0	7.95	1,180.0	8.94		501.6	
1938-39 as per-	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
centage of:									
average	96.2	82.8	99.5	100.0	76.5	81.6		174.2	
1937-38	67.9	109.0	77.5	102.2	108.5	84.5		140.8	

1/ Mill stocks on August 1 plus production.

2/ Total stocks on August 1 plus production.

3/ Stocks on August 1 plus production under Federal Inspection.

4/ Preliminary estimates of supply. Prices are for August and September.

Total domestic stocks on June 30, 1938 of five of the principal vegetable oils which compete more directly with cottonseed oil were about 41 percent larger than a year earlier and 74 percent larger than the 10-year average. The stock situation, together with very rough estimates of probable production and imports during the current cotton-marketing year, indicates that the competition from these oils may be as great or greater than during the 1937-38 season.

Domestic disappearance of cottonseed oil for the 1938-39 season in all probability will be materially less than the record disappearance of the previous season, but seems likely to exceed production by a substantial amount. Stocks of cottonseed oil on August 1, 1939, therefore, should be considerably below those of August 1 this year.

Cake and Meal and Hulls

Conditions in late October indicate that the supply of both cottonseed hulls and cottonseed cake and meal in 1938-39 will be roughly one-third less than in 1937-38 and 6 and 1 percent, respectively, smaller than the average for the 10-year period ending with 1936-37. Mill stocks of cake and meal at the beginning of the season were the largest on record and stocks of hulls were the third largest on

record. Such stocks of these products, however, were still only 10 to 12 percent as large as the prospective production during the current season.

Average prices of cottonseed hulls during the first 2 months of the season were approximately 7 percent lower than the average for the 12 months ended July 1938 and about one-third lower than the 10-year average. Prices of 41 percent protein meal were very slightly lower than the average for the past season and one-fourth lower than the average for the 10-year period. In addition to the price-depressing effect of the lower level of general domestic demand conditions, United States supplies of feed grains are now expected to be about 6 percent larger than in 1937-38, one-eighth larger than average, and the largest in 6 years.

Supply of feed grains, and cottonseed hulls, meal, and linters in the
United States

	U. S.	Hulls	Cake and Meal	Linters, F.O.B.	Mill Points		
Season	supply	Price	Price of:	Supply	Average price of		
beginning	of feed:	at	meal-41%:	Supply			
August 1	grains :	Atlanta:	protein :	3/	No. 2	No. 6	
	1/		at	Memphis :			
	Million:	1,000	Dollars:	1,000	Dollars :	1,000	Cents
	tons	tons	per ton:	tons	per ton :	tons	per lb.
Average							
1927-28 to							
1936-37	98.3	1,306	10.16	2,158	29.06	1,290	4.87
1932-33	122.6	1,475	7.17	2,208	15.80	1,367	2.48
1933-34	100.2	1,180	11.62	2,049	21.71	1,245	5.13
1934-35	65.9	944	12.24	1,739	32.31	1,149	5.75
1935-36	96.9	1,064	10.04	1,936	22.40	1,171	5.49
1936-37	71.2	1,168	11.43	2,097	34.34	1,393	5.00
1937-38	104.3	1,668	7.20	2,872	22.36	1,834	3.57
1938-39 4/	111.0	1,233	6.68	2,140	21.52	1,852	3.48
1938-39 as	Percent:	Percent:	Percent:	Percent:	Percent:	Percent:	Percent
Percentage:							
of average:	112.9	94.4	65.7	99.2	74.1	143.5	71.5
of 1937-38:	106.4	73.9	92.8	74.5	96.2	100.9	97.5
1/ Stocks on June 1, July 1, or October 1 (depending upon the kind of grain)							
plus production.							
2/ Mill stocks on hand August 1 plus production.							
3/ Total stocks on August 1 plus production.							
4/ Preliminary estimate of supply. Prices are for August and September.							

Linters

The 1938-39 production of linters may be about one-third less than in the preceding season. But with the August 1, 1938 United States carry-over of linters approximately two and one-third times as large as a year earlier, the indicated domestic supply for the current season is about the same as the record supply of the previous season. In comparison with the 10-year average, the indicated 1938-39 supply of linters represents a 44 percent increase. The average prices of the better qualities of linters in August and September this year were about the same as the average for the 1937-38 season but the prices of the lower qualities were materially lower, Grade No. 6 averaging 13 percent lower.

Release Date
November 1, A.M.

THE WHEAT OUTLOOK FOR 1939

Summary

A material reduction in the United States wheat acreage seeded for harvest in 1939 is expected from adjustment operations and the prevailing low prices resulting from the record world production in 1938.

The acreage allotted for seeding for the 1939 wheat crop (under the Agricultural Adjustment Act of 1938) is 55 million acres. This compares with the 1928-32 average seedings of 67 million acres, and 81 million acres seeded for the 1938 crop. The extent of the participation by farmers in the acreage adjustment program is uncertain. If total wheat seedings are reduced to 55 million acres, and average yields per seeded acre are obtained, production would amount to about 660 million bushels. This would be less than the average domestic disappearance of about 680 million bushels, and would be likely to result in a reduction in carry-over at the close of the next marketing year.

If seedings for 1939 exceed the allotment of 55 million acres to any considerable extent, and average yields are obtained, an increase in the already large United States carry-over appears unavoidable. This assumes annual exports of about 100 million bushels. Moreover, the wheat acreage in the rest of the world is not likely to be decreased, and even with a reduction to 55 million acres in the United States, average yields would produce a crop nearly equal to the annual world consumption.

Unless there should be a greater improvement in economic conditions or in the general price level than is at present indicated, domestic wheat prices in 1939-40 are expected to continue low compared with recent years.

Domestic Prospects

The acreage allotted for seeding for the 1939 wheat crop (under the Agricultural Adjustment Act of 1938) is 55 million acres. This compares with the 1928-32 average seedings of 67 million acres, and 81 million acres seeded for the 1938 crop. The extent of the participation by farmers in the acreage adjustment program is uncertain. If total wheat seedings are reduced to 55 million acres, and average yields per seeded acre are obtained, production would amount to 660 million bushels. This would be less than the 10-year (1928-37) domestic disappearance of about 680 million bushels, and would be likely to result in a reduction in stocks during the marketing year. With a production of around 660 million bushels, domestic prices might rise above world levels, although the large carry-over stocks would tend to offset the influence of the smaller crop.

Wheat Outlook

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The annual average yields per seeded acre usually vary between 10 and 14 bushels. If seedings should be reduced to the 55 million-acre level proposed, a 10-bushel yield would result in a new-crop supply small enough to permit the reduction of stocks by perhaps 125 million bushels. On the other hand, a yield of 14 bushels would result in a crop materially above domestic requirements and add to stocks. In the latter event the United States carry-over on July 1, 1940, even after allowing for annual exports of 100 million bushels, might still be above average by about 150 million bushels.

In much of the Great Plains area, the soil moisture around seeding time is an important factor in determining yields of winter wheat. Information available as of late October indicates that in this area as a whole, soil moisture supplies are below average but are generally more favorable than at the same time in any of the last 6 years. In much of the area, however, surface moisture has been unfavorable for germination of late seedings.

Although the detailed surveys on the grasshopper situation have not been completed, reports received appear to indicate that infestation will be less in 1939 than during the last few years, but still somewhat above average. Infestation continues to be serious throughout most of the Great Plains and especially in the Dakotas and eastern Montana. Distinct improvements, however, are reported for Kansas, Missouri, and Illinois, where invasions have been destructive. Indications are that hessian fly populations are low to moderate except in the northern half of Indiana and the northwestern counties of Ohio, where marked increases have occurred. The great general outbreak of chinch bug, which culminated in 1934-36, appears to have subsided. But the summer brood of chinch bug has been reported as occurring in large numbers in parts of Iowa, Missouri, and Illinois.

In table 1 (which shows the 1938-39 indicated supply and prospective distribution of wheat in the United States compared with 1937-38) the prospective carry-over on July 1, 1939, including insurance stocks, is indicated to be close to 300 million bushels. This compares with about 325 million bushels, the average for the 1930-34 period, when stocks reached record size. The carry-over on July 1, 1939, is expected to contain a substantial proportion of milling wheats and, as a result, supplies of such wheat in 1939-40 are expected to be ample even if relatively small yields should be obtained in 1939.

Table 1.- Estimated wheat supply and prospective distribution, Continental United States, years beginning July 1, 1938 compared with 1937

Item	Year beginning July 1	
	1937 estimates:	1938 indications
	Million bushels	Million bushels
Carry-over, July 1	83	154
Production	874	940
Imports	1	0
Total supply	958	1,094
Disappearance	700	700
Net exports and shipments 1/.....	104	100
Carry-over June 30	154	294

1/ Includes flour in terms of wheat.

Export outlet for 1939-40 less favorable

Production in excess of domestic disappearance, which includes wheat for food, feed, and seed, must either be exported or go to enlarge the domestic stocks. World trade in wheat has declined sharply since the peak year of 1928-29, chiefly as the result of drastic restrictions on imports and increased production in the major importing countries. In the early part of this period exports from the United States declined with those from other surplus-producing countries. During the period 1934-36 small crops in the United States, the result of abnormally low yields, were followed by net imports. In 1937 production in the United States was again large, and about 100 million bushels were exported, leaving about 70 million bushels to be added to the carry-over. Large-scale exports in 1937-38 resulted from the small world stocks and small crops in Canada and Argentina. Prospects are not favorable for United States exports in 1938-39 because of increased production in other countries, but it is expected that, by Government aid, exports may total 100 million bushels. Unless yields in other important exporting countries should be low, export prospects for United States wheat in 1939-40 are definitely less favorable than in either of the two previous years because of the expected increase in world carry-over stocks. Export prospects for United States wheat might be improved, however, by low yields in other important producing countries.

World Prospects

The present world acreage* of approximately 285 million acres is about 15 million acres, or about 5 percent above that necessary, with average yields, to produce a crop equal to the 10-year (1927-36) average annual disappearance of about 3,775 million bushels. World yields per acre have fluctuated within a very narrow range, since wide variations in different regions have been largely compensating. Disregarding exceptional years, average annual yields have varied only about 1/2 bushel from the long-time average of 14 bushels per acre. During the 15 years, 1923-37, yields were lowest in 1936, when they averaged 12.8 bushels, and highest in 1928 when they were 15.1 bushels. Large crops both in the United States and in other countries in 1938 are to a considerable extent contributing to lower prices in 1938-39. Unless the world wheat acreage is adjusted downward, supplies will probably continue to be burdensome during the 1939-40 season, and any improvement in world prices would depend upon improvement in economic conditions or in the general price level.

World carry-over July 1, 1939, expected to be large

On the basis of present supply estimates and a moderate increase in world disappearance, the world wheat carry-over on July 1, 1939, is expected to be about 1,165 million bushels (table 2). A carry-over of 1,165 million bushels would be second only to the 1,193 million bushels in 1933.

* All references to world and Northern Hemisphere wheat stocks, acreage, production, and disappearance exclude Soviet Russia and China unless otherwise stated.

Wheat Outlook

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In 1936-37 and 1937-38, world supplies were closely adjusted to requirements, as the result of a series of small crops in important producing countries, caused by unfavorable weather rather than by any significant reduction in acreage. In 1937 the world carry-over reached its lowest point since estimates were started in 1922. By July 1938, the carry-over had increased by about 75 million bushels, and the forecast for July 1939, based on present production estimates for the Northern Hemisphere and crop prospects in the Southern Hemisphere countries, is for a carry-over of about 575 million bushels larger than in 1938, or an amount more than twice as large as in July 1937. Several European countries, including France, the United Kingdom, and the Danube Basin countries, are expected to build up their wheat stocks during 1938-39.

Table 2.- Estimated wheat supply and prospective distribution, world 1/, year beginning July 1, 1938 compared with 1937

Item	Year beginning July 1	
	1937 estimates	1938 indications <u>2/</u>
	Million bushels	Million bushels
Carry-over July 1	519	595
Production	3,839	4,364
Total supply	4,358	4,959
Net exports from Soviet Russia	39	<u>2/</u> 35
Total of above	4,397	4,994
Disappearance	3,802	3,830
Carry-over June 30	595	1,164

1/ Excluding stocks and production in Soviet Russia and China, but including net exports from Soviet Russia. 2/ Based on current estimates of production in the Northern Hemisphere, and prospects in the Southern Hemisphere, together with prospective utilization and Government policy.

Larger world shipments in prospect

World shipments during 1938-39 are forecast by the Bureau of Agricultural Economics at about 550 million bushels, including about 440 million bushels to European importing countries and about 110 million bushels to non-European countries. This is an increase in total shipments of about 50 million bushels over shipments in 1937-38.

World shipments in 1939-40 may not be greatly different from those of 1938-39, but the share supplied by North American and the Southern Hemisphere countries may be larger, for the European exporting countries are not likely to obtain yields equal to those of 1938, which were much above average. European exporting countries are expected to supply close to 100 million bushels in 1938-39. At this time there is little reason to expect any material change in imports by non-European countries in 1939-40.

Wheat Outlook

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Government agricultural and trade policies in most European countries during recent years have favored domestic wheat production. No important change in these policies is in evidence for 1939. As a result of increased production in Europe, the volume of world trade in wheat and flour has declined and the share of overseas wheat in the total trade has been definitely downward. During the last 5 years total world shipments have averaged 531 million bushels compared with 566 million bushels during the 10 years before the World War, and an average of 781 million bushels during the record 1924-28 period. Increased production in the Danube Basin countries and in Poland, Turkey, and European Soviet Russia, this year, resulted in larger exportable surpluses. These have been moving in competition with wheat from North America, Argentina, and Australia to a very large extent under preferential advantages granted by deficit European countries.

Yields per acre in European surplus-producing countries in 1938 were unusually large, and more nearly normal yields in 1939 probably would result in some increase in the proportion of the takings of wheat from overseas compared with 1938-39. According to estimates by the European offices of the Bureau of Agricultural Economics, the wheat acreage for harvest in 1939 will not be greatly different from that of 1938, assuming that more or less normal weather conditions prevail at seeding time, and winter kill is not abnormal.

THE TOBACCO OUTLOOK FOR 1939

Summary

The outlook for United States tobacco as a whole in 1939 is rather favorable. Production in 1938 and prospective stocks in 1939 for most types are fairly well in line with anticipated disappearance. Burley production in the past 2 years, however, has been materially above disappearance, and stocks on October 1, 1939 are expected to be large.

Total domestic utilization of tobacco during the next year or more is expected to expand moderately. Increases probably will be confined to cigarette and cigar types. Exports from the 1938 crops likely will be somewhat below those from the 1937 production. Total stocks of tobaccos as a whole probably will be larger at the beginning of the next season due mainly to the substantial increase in the carry-over of Burley. Slight increases in stocks appear probable for flue-cured, dark air-cured, and Maryland, while stocks of fire-cured and cigar types are expected to decline.

Total production of all types of tobacco in 1938 is estimated at 1,484,690,000 pounds or about 4 percent less than the 1937 crop. The decrease as compared with last season is due to declines in flue-cured, fire-cured and dark air-cured types of 5, 18, and 25 percent, respectively. Material increases in production are indicated for Maryland and some cigar types while Burley production in 1938, however, is expected to be only slightly below the very large crop of 1937.

The domestic situation

Business activity has shown some improvement in recent months, and this improvement accompanied by increased consumer buying power is expected to continue during the next year or more. This should result in a larger consumption of tobacco products, particularly cigarettes.

Tax-paid withdrawals of cigarettes were only slightly larger in the first 8 months of 1938 than in the corresponding period a year earlier, although cigarette consumption has been well maintained during the past year in view of the relatively low level of general business activity. Cigar consumption in the first 8 months of 1938 was 7 percent less than a year earlier. Consumption of cigarettes and cigars probably will increase in 1939. No significant change in the utilization of chewing and smoking tobacco and snuff appears likely.

The foreign situation

Foreign demand prospects for United States tobaccos as a whole are fairly good as compared with average conditions during the past few years, but probably are somewhat less favorable than in 1937-38.

Tobacco Outlook

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Exports of flue-cured, which account for about 75 percent of total exports of all tobaccos, in the 12 months July 1, 1937, to June 30, 1938, totaled about 362 million pounds export weight or 19 percent more than in the preceding year. Exports to the United Kingdom, the principal market, were nearly 40 percent larger than in 1936-37. British consumption of cigarettes made from flue-cured tobacco has increased during the past few years, but the upward trend apparently has been halted, at least temporarily, by the decline in general business activity in Britain. Exports of United States leaf to England this last season were considerably greater than manufacturers' requirements and by July 1, 1938, stocks had been built up to about a normal level with reference to current rates of consumption, in contrast to the extremely low level of stocks which prevailed on July 1, 1937. Stocks of Empire flue-cured leaf are much above normal and a further increase in the proportion of total British consumption represented by non-American leaf appears probable. In China and Japan consumption and trade in cigarettes and flue-cured tobacco continue to be curtailed by hostilities.

Production of flue-cured tobacco in principal reporting foreign countries in 1937-38 was larger than in the preceding season and about 3 times as great as in 1930-31. This upward trend probably will continue in most countries. Total foreign production in 1938, however, is expected to be materially below 1937, due to the sharp decrease in the 1938 crop in China, by far the most important foreign producing country.

It seems likely that exports of United States flue-cured from the 1938 crop will be above the average of recent years.

The outlook for exports of dark types of tobacco continues to be unfavorable due to a decrease in total consumption of these types and the operation of trade barriers. There is no immediate prospect of increased exports of Burley and Maryland tobaccos.

Summary by Types

Flue-cured

Domestic consumption is expected to increase, principally because of expanding cigarette production. Exports from the 1937 crop were large and as a result foreign stocks have increased, with smaller exports from the 1938 crop anticipated. The 1938 crop of 813 million pounds is larger than the anticipated disappearance of 1938-39 and stocks on July 1, 1939, are likely to show a moderate increase over the record level of a year earlier. Unless 1939 production is somewhat below that of 1938, the marketing situation in 1939-40 probably will be less favorable than that of the current season.

Burley

Stocks on October 1, 1939, are expected to show a further large increase. Total supplies in 1939-40 will be large relative to disappearance unless production is reduced from the high level of 1938 and 1937.

Maryland

Estimated 1938 production is slightly above prospective disappearance. Stocks, which already are adequate, will likely show a small increase on January 1, 1940. The foreign situation for this type remains unfavorable.

Fire-cured

Exports are expected to continue at low levels, and little change is anticipated in snuff production, the principal domestic outlet. The 1938 production is fairly well in line with the 1938-39 prospective disappearance of these tobaccos for ordinary purposes. Stocks on October 1, 1939, are expected to be lower than the small stocks of the current season but still adequate for the present low level of disappearance.

Dark air-cured

Production of these types in 1938 is about the same as prospective disappearance in 1938-39. Stocks on October 1, 1939 are expected to be fairly well in line with consumption.

Cigar types

With better business conditions in prospect, cigar consumption in 1938 likely will increase. Stocks on October 1, 1939, probably will be smaller than a year earlier largely because of storm losses in the Connecticut Valley. A total cigar acreage in 1939 about the same as in 1938, with average growing conditions, would result in a production not greatly different from prospective disappearance.

Flue-cured Tobacco, Types 11 - 14

While stocks of flue-cured tobacco on July 1, 1939 are expected to increase somewhat as compared with the record high of July 1, 1938, disappearance during the next year or two probably will not be greatly different from the high level of 1937-38. In view, however, of the moderate excess of 1938 production over prospective disappearance, the 1939 crop should be somewhat smaller than that of 1938 if the present marketing situation is to be maintained.

Total disappearance of flue-cured tobacco in the 12 months July 1, 1937 to June 30, 1938 is preliminarily estimated at nearly 784 million pounds, the largest on record. This disappearance came about as the result of what was apparently a record-breaking domestic consumption and the highest level

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of exports since 1930. Disappearance in the present 1938-39 season is expected to be large, but probably not quite so large as in 1937-38. Domestic consumption probably will be greater than in 1937-38, but it is anticipated that this will be more than offset by a decline in exports.

The 1938 crop is estimated to be 812,640,000 pounds which added to the record high level of stocks of 954,300,000 gives a total prospective supply for the season of 1,766,917,000 pounds or slightly larger than the previous record high of last year. Since disappearance in the 12 months beginning July 1, 1938, is expected to be slightly less than the 1938 crop, some increase probably will occur in stocks on July 1, 1939. Only a moderate reduction in 1939 production, however, would be required to make the total supply for 1939-40 approximately the same as that of the current season.

Average prices for that part of the 1938 crop sold by October 1 have been about the same as a year earlier. Prices were higher in August but receded somewhat in September. Notable so far this season has been the higher prices paid for the low to medium quality grades and the lower prices paid for the higher quality tobacco relative to 1937. While production is nearly 65 million pounds in excess of the marketing quota of 748 million pounds, the high prices being received for the lower grades probably will result in practically the entire production being marketed, notwithstanding the penalty on marketings in excess of the quota.

Domestic demand and consumption likely to increase

The principal domestic use of flue-cured tobacco is in the manufacture of cigarettes, with smaller amounts utilized in light smoking mixtures and chewing tobacco. The long-time upward trend in the production and consumption of flue-cured has been related in a significant degree to the increased consumption of cigarettes. In the years just before the World War the unstermed equivalent of all leaf tobacco used in the manufacture of cigarettes amounted on the average to less than 50 million pounds per year, but since then has increased rapidly and in the calendar year 1936 amounted to over 450 million pounds. Tax-paid withdrawals of small cigarettes in the fiscal year July 1, 1937, to June 30, 1938, reached a record high of 164,382,000,000 or 3.6 percent more than in the preceding 12 months. This is a much smaller expansion than occurred in 1937-38 when the increase amounted to 12 percent. Withdrawals in the first 8 months of the calendar year 1938 were about 1 percent greater than in the corresponding period in 1937, notwithstanding the much lower level of consumer incomes.

The reluctance of consumers to curtail purchases of a habitually used commodity and the persistence of a long-time upward trend in cigarette consumption no doubt were partly responsible for the maintenance of cigarette consumption during the period of sharply decreased business activity. Perhaps also the average price paid by consumers for cigarettes has declined somewhat since trade reports indicate that there has been a material increase in the production and consumption of the 10-cent brands. The decline in consumer buying power, however, undoubtedly resulted in a smaller demand for

cigarettes than otherwise would have been the case, due both to a reduction in the demand for all tobacco products and to a shift from machine-made cigarettes to cheaper forms of tobacco consumption.

Anticipated increases in industrial production and consumer incomes in 1939 should result in an increase in domestic consumption of tobacco products, particularly cigarettes. Such a development indicates that the domestic utilization of flue-cured tobacco will increase during the next year or more.

Outlook for exports fairly favorable

On the average during recent years about 50 percent of the United States production of flue-cured has been exported. Approximately 85 percent of total flue-cured exports in the 12 months July 1, 1937, to June 30, 1938, of 362 million pounds went to Europe, and about two-thirds of the total went to the United Kingdom alone. Consumption of flue-cured tobacco, mainly in the form of cigarettes, is tending to expand in foreign countries as well as in the United States. An important exception to this generalization is China where military operations have reduced both production and consumption of cigarettes and flue-cured tobacco. In spite of decreased exports of United States flue-cured to the Orient and to miscellaneous markets in 1937-38, total exports were materially larger than in the preceding 12 months due to greatly increased takings by the United Kingdom. Exports during the first 3 months of this marketing season were greater than during the corresponding period in 1937 due in part to heavier production in the southern part of the belt and to earlier marketing throughout the flue-cured area as a whole. It is doubtful, however, whether total exports for the marketing season will equal those of 1937-38.

Notwithstanding the increase in the total demand for and consumption of American flue-cured tobacco last season over the preceding year, United States leaf probably represented a smaller proportion of total consumption than in any preceding year. This was the result of a continuation of the upward trend in production of flue-cured in foreign countries. Foreign production in principal reporting countries in 1937-38 of 395,100,000 pounds was nearly 3 times as great as in 1930-31. This upward trend in foreign production allowing for a temporary interruption in China, is likely to continue with a corresponding tendency to make the foreign demand for United States leaf smaller than otherwise would be the case. Due to the much smaller crop in China, total foreign production of flue-cured in 1938 will be below 1937. It is not expected, however, that there will be a corresponding tendency to increase the foreign demand for United States leaf as compared with a year earlier, because hostilities in China have reduced consumption as well as production of flue-cured tobacco.

While the trend toward cigarettes made from flue-cured tobacco is continuing, foreign utilization of all flue-cured leaf during the next year probably will be about the same as or only slightly larger than in the preceding year due to the unfavorable outlook for business activity in important European importing countries, especially the United Kingdom, and the continuation of military operations in the Orient. It is expected, however, that exports from the 1938 American crop will be somewhat above the average of recent years.

Outlook in United Kingdom less favorable than a year earlier- Manufacturers' utilization of flue-cured tobacco in England has shown an increase so far in 1938 as compared with the corresponding period in 1937. The rate of increase in domestic consumption has slackened considerably, due presumably to decline in industrial activity. So far exports of manufactured tobacco products from England have held up rather well, but if the declining trend of exports in other commodities should be extended to tobacco products the market for American flue-cured leaf would be affected unfavorably. It seems likely that total British consumption of all flue-cured tobacco in the next 8 to 12 months will be only slightly, if any, greater than a year earlier.

Probably more important to the foreign market for United States flue-cured leaf, however, than the check to the total flue-cured utilization is the continued expansion in the consumption of Empire flue-cured. The growth in the proportion of total British consumption represented by Empire growths has continued almost without interruption since the close of the World War. During the last few months imports of Empire leaf have been large in volume and stocks are very high in relation to domestic requirements. This situation indicates the probability of further increases in consumption especially in view of the tendency for British manufacturers to introduce new low priced brands of cigarettes made largely from Empire tobacco which is imported under a preferential duty amounting to approximately 50 cents a pound less than the full duty levied on United States leaf.

British stocks of American flue-cured were extremely low on July 1, 1937. Imports from the United States in the 12 months July 1, 1937, to June 30, 1938, however, were considerably in excess of quantities used by manufacturers, and stocks have been replenished to about an average level with reference to the current rate of consumption. Imports from this country in the 1938-39 season also may be adversely affected by an expected lower average value for the Pound Sterling. Recent declines in foreign exchange rates undoubtedly have been associated in a high degree with the recent crisis in international relations. Even with these uncertainties partly dispelled, however, the British Pound Sterling is expected for some months at least to have a lower exchange value relative to the dollar than on the average during the past 2 or 3 years because of a relatively unfavorable balance of trade for the United Kingdom.

In view of all these conditions, it is probable that exports from the 1938 crop of flue-cured tobacco from the United States to Great Britain will be somewhat smaller than the 237 million pounds exported from the 1937 production.

No Significant Change in Prospect in Other Europe- There is a trend toward cigarettes made of flue-cured tobacco in several countries of Continental Europe. In some countries, however, for instance France and Belgium, consumption has been checked during the last year by increased taxes and higher prices for tobacco products. In Germany and Italy, particularly the former, there is a considerable potential demand for American flue-cured leaf but imports are curtailed by exchange restrictions.

Situation Continues Unfavorable in Orient - The total quantity of flue-cured leaf available to cigarette manufacturers in China, Manchuria, and the Japanese Empire from the 1937 crop in these countries is estimated to have been approximately equal to 1936 production. Production in the above areas was substantially larger than in the preceding year but military operations in China resulted in approximately 50 million pounds of China's record crop of 210 million pounds being destroyed or diverted to uses other than for cigarettes. Hostilities and accompanying conditions have reduced consumption in China more than production and consequently the carry-over in China, Manchuria, and the Japanese Empire as a whole is considerably above that carried over into the 1937-38 season.

The 1938 crops in Manchuria and the Japanese Empire are expected to be larger than in 1937, but the Chinese crop is estimated at approximately 78 million pounds or only about one-third as large as in 1937. As a result, total production in these areas probably will be more than 40 percent below the record production of the preceding year. Assuming, however, that none of the 1938 Chinese crop is destroyed or diverted to other uses, the total supply of flue-cured leaf will be decreased by less than 30 percent due to the large carry-over from the preceding season. Unless the Sino-Japanese conflict is terminated at an early date, consumption of manufactured cigarettes made from flue-cured tobacco during the present season probably will be no larger than in 1937-38. Disruption of transportation facilities continues to hamper the distribution of cigarettes in the interior. Many cigarette factories are shut down and the lower level of buying power of the population probably will continue for some time. Imports of flue-cured leaf, especially from the United States, probably will be smaller.

Utilization in the Japanese Empire will tend to be reduced by a lower level of purchasing power among the general civilian population, but this is expected to be offset by increased consumption by the army, navy, and persons engaged in war industries. Imports of tobacco from the United States probably will be reduced even below their present small amounts as a result of continued exchange restrictions and increased production of flue-cured leaf within the Empire. It is likely that larger quantities of Japanese tobacco will be exported to compete with United States flue-cured in other countries.

Burley Tobacco, Type 31

With another large crop of Burley indicated for 1938 and a further increase in stocks in prospect for October 1, 1939, a material decrease in Burley production in 1939 appears desirable.

Production of Burley tobacco in 1938 is indicated as of October 1 at approximately 395 million pounds or slightly less than the large 1937 crop, nearly twice as great as the small production of 1936, and 35 percent more than the average for the 10-year period 1927-36. The yield per acre in both 1937 and 1938 was substantially above average. If the 1927-36 average yield of 778 pounds had been obtained on the 1938 acreage, this year's

production would have amounted to less than 350 million pounds. The marketing quota established for the 1938 crop under the terms of the Agricultural Adjustment Act of 1938 is 357 million pounds. Stocks on October 1 are estimated at 662 million pounds or approximately 90 million pounds more than the extremely low level on October 1, 1937. The total prospective supply for the 12 months beginning October 1 is estimated at 1,057,100,000 pounds or approximately 8 percent larger than the supply for the corresponding period a year earlier. While estimated stocks on October 1 are not considered excessive, their increase over a year earlier plus another large crop makes the total supply of Burley the largest in history with the exception of 1933. The 1938 crop, however, will be marketed under conditions of improving business activity and consumer buying power whereas the opposite situation prevailed during the marketing season for the 1937 crop.

Stocks of Burley are expected to show a further increase on October 1, 1939, to between 740 and 750 million pounds, since disappearance in the 12 months October 1, 1938, to September 30, 1939, likely will be less than 1938 production by between 75 and 85 million pounds. This will be the highest level of stocks in history with the exception of 1934 and 1935.

Burley production in 1939 should be reduced

The present situation indicates that a decrease in Burley production in 1939 relative to 1938 is necessary in order to give best returns to farmers. If production in 1939 should amount to about 325 million pounds it would not be greatly different from total disappearance. Due to the anticipated higher level of stocks on October 1, 1939, total supply then would be about the same as in 1938-39.

Domestic consumption increasing

Disappearance of Burley in the 12 months October 1, 1937 to September 30, 1938, is estimated to have been approximately 312,500,000 pounds. This represents a decline from the preceding year, but disappearance in 1936-37 was augmented by substantial flood losses. Estimated disappearance in 1937-38 is slightly higher than in 1935-36 and 8 percent above the 10-year average.

The largest single use for Burley is in the manufacture of cigarettes. Large quantities also are consumed in smoking mixtures and chewing tobacco. In view of the continued upward trend in cigarette consumption and the prospect of improving levels of business activity and consumer incomes which will tend to expand the consumption of most tobacco products, especially cigarettes, the outlook for the consumption of Burley is favorable.

Export market probably will continue to be of small importance

Exports of Burley probably will show relatively little change during the next season or two. Exports in the 11 months ending September 30 were slightly smaller than in the corresponding period a year earlier. Exports of Burley have averaged around 10 million pounds during the last few seasons and

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there does not appear to be a prospect of any significant change in the future. An increased consumer preference is evident in several countries of Continental Europe for blended cigarettes made from flue-cured and light air-cured tobaccos. United States Burley, however, suffers from trade barriers of various kinds and the competition of foreign leaf.

Maryland, Type 32

The outlook for Maryland tobacco is such that a moderate decrease in acreage from the 38,500 acres harvested in 1938 appears desirable.

The 1938 crop is indicated as of September 1 to amount to 30 million pounds or 19 percent more than 1937 production and 17 percent greater than the average for the 10 years 1927-36. The indicated yield per acre of 780 pounds is somewhat above the 1927-36 average of 721 pounds. A decrease of 5 to 10 percent in 1939 acreage with 10-year average yields would result in a production of between 25 million and 26,400,000 pounds on an area of from 34,700 to 36,600 acres. Since stocks on January 1, 1939, are expected to be smaller than a year earlier, the total prospective supply available for the calendar year 1939 is only slightly larger than in the season beginning January 1, 1938. Both total supply and stocks, however, will be materially larger than the 10-year average. If the 1939 crop is reduced to around 25 or 26 million pounds, production would be less than prospective disappearance, and stocks on January 1, 1940, would show some decline.

Prices for Maryland tobacco sold on the Baltimore market so far in 1938 have been somewhat lower than those which prevailed a year earlier for the 1936 crop. Among the factors which have contributed to this decline in prices are the lower level of general business activity and commodity prices, the prospect for a large 1938 production, weakness in foreign demand and a reported lower average quality of the crop. Disappearance in both 1937 and 1936 was larger than on the average in the 10 years 1927-36 due to the higher level of cigarette consumption. Maryland tobacco is used principally in the making of cigarettes largely because of its desirable burning qualities.

There is little immediate prospect for any significant improvement in the foreign demand for Maryland tobacco from the low level of recent years. Exports in the calendar year 1937 were about 13 percent less than in 1936, and exports so far in 1938 show a further decline. The principal foreign markets are in Continental Europe. Apparently the demand for tobaccos possessing the characteristics of Maryland is tending to increase, but as in the case of Burley, United States leaf suffers from trade barriers and the substitution of low-priced foreign grown leaf.

The outlook for improved general business and demand conditions in 1939 and a further increase in cigarette consumption should make returns to growers from the sale of the large 1938 crop fairly good, especially if prospects during the marketing season are for a smaller area and production of Maryland tobacco in 1939.

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Fire-cured Tobaccos, Types 21-24

Some improvement in the general marketing situation for fire-cured tobaccos in 1939-40 can be expected if production in 1939 is held at around the 1938 level.

Though supplies of these tobaccos in 1938-39 are at record low levels, supplies have been burdensome for years. Beginning with the 1935-36 season, however, prices and disappearance have been higher than otherwise would have been the case as a result of the by-products diversion program of the Agricultural Adjustment Administration.

Production of fire-cured tobaccos in 1938 was reduced by excessive rains and by a widespread infestation of the wildfire disease, and is estimated to amount to 97 million pounds. This figure is somewhat lower than the prospective disappearance of these tobaccos in 1938-39 and should be reflected in lower stocks on October 1, 1939.

The total supply of fire-cured tobaccos on October 1 amounted to only 261 million pounds, but the disappearance of the 1937-38 season of about 124 million pounds, which includes tobacco diverted to byproducts uses, is the lowest on record with the exception of the 1934-35 season. Disappearance through the normal channels of trade continues to decline. Exports in the first 11 months of 1937-38 were the lowest in history and there are no present indications of improvement. Continued military operations in Spain, trade restrictions in Germany, and some other countries, and competition of foreign grown tobaccos continue to adversely affect the exports of these types.

Domestic snuff withdrawals in 1938 are expected to be about equal to those of 1937, which were 3 percent less than in 1936. Domestic production of Italian type cigars from the fire-cured tobaccos is reported to show little change from 1937, but is on an appreciably lower level than was the case a few years ago.

A production in 1939 of 100,000,000 pounds of fire-cured types will probably be sufficient for ordinary domestic uses and for export.

Dark air-cured Tobaccos, Types 35-37

A continuation of the 1938 acreages for Green River, Type 36 and for Virginia Sun-cured, Type 37, and some reduction in acreage for One Sucker, Type 35, with average yields, would bring about a 1939 production of these types approximately the same as prospective disappearance.

Stocks on October 1, 1938 were about 25 percent larger than a year earlier but the 1938 crop of about 36 million pounds was appreciably below the 1937 crop and 1938-39 supplies are about the same as in 1937-38. The quality of One Sucker and Green River types was seriously damaged by the wildfire disease and by excessive rains. As a result there will be a

smaller amount of the grades in the 1938 production of these types that are suitable for twist and black fat.

Domestic consumption of the dark air-cured types shows little change, and total exports including the semi-manufactured black fats and similar tobaccos made from these dark air-cured tobaccos continue to decline. Disappearance in the 1938-39 season will probably show little change from the 1937-38 disappearance of around 35 million pounds.

Cigar Tobacco, Types 41-62

Although the general situation for cigar tobacco for 1938-39 seems to warrant a 1939 crop about the same as that of 1938, prospects vary somewhat for the different types. In order to bring supplies more closely in line with prospective disappearance, somewhat smaller crops for Pennsylvania filler, Wisconsin binder, and Georgia and Florida shade-grown wrapper seem desirable. On the other hand increased production for Miami Valley, Connecticut Valley Broadleaf, Havana Seed, and Connecticut Valley shade-grown seems warranted. Recent storm damage in Connecticut and Massachusetts will result in reduced stocks for 1939, especially in the binder types.

Consumption of cigars as indicated by tax-paid withdrawals increased each year from 1934 through 1937. During the first 7 months of 1938 withdrawals declined about 7 percent from the corresponding period in 1937, in line with the sharp recession in industry and employment. Improvement in this situation seems probable over the next year. The consumption of scrap chewing tobacco appears to be decreasing.

Filler types. Supplies for the current marketing year for all continental types are somewhat less than a year ago. Stocks have been reduced substantially and a slight further reduction may be expected by October 1, 1939. The 1938 crop is estimated to be larger than that of 1937 though somewhat less than disappearance for the year ended October 1. Taken as a whole, supplies of these types of tobacco appear to be adequate. The situation differs markedly in the two important filler districts. In Pennsylvania production continues to exceed disappearance, and stocks are therefore increasing. In the Miami Valley of Ohio production for several years has been below disappearance, with the result that stocks have reached the lowest point since 1930. In this area a moderate increase of acreage would be desirable.

The Puerto Rican crop of filler tobacco harvested last spring is estimated to be about 42-1/2 million pounds or more than 50 percent greater than any crop of recent years. Although this type of tobacco is completely in a degree to continental types, the effect of this excessively large crop and the resulting low prices may be to bring it into more direct competition with continental filler types, especially Pennsylvania.

Binder types. The supplies of all binder types on the basis of October production estimates were larger than a year ago. Supplies have been reduced by the destruction of an estimated 5,600,000 pounds of the 1938 crop by storms in the Connecticut Valley. While the full extent of loss is yet undetermined, the percentage either destroyed or rendered unfit for cigar manufacturing purposes is certain to be high. Although no actual shortage of binder tobacco is expected to occur, an increase is recommended in the acreage of Types 51 and 52 to about 18,000 acres compared with 15,300 harvested in 1938.

In the case of Wisconsin Types 54 and 55, production in 1938 is estimated to be 35 percent greater than the crop of 1937. With this size crop, supply is somewhat higher than a year previous. With reduced consumption of scrap chewing tobacco, a crop in 1939 smaller than the 1938 production of about 35 million pounds appears desirable.

Wrapper types. Production of wrapper, Types 61 and 62, is estimated to be 9,980,000 pounds compared with 8,988,000 in 1937, subject however to an estimated storm loss in Type 61 of 900,000 pounds. Production of Type 61 tobacco continues to be below consumption with a corresponding reduction in stocks. Supplies of this type appear to be low, particularly in view of the storm damage. Increased production in 1939 seems imperative not only to recoup these losses but to keep pace with normal manufacturing requirements.

Production of Type 62 in 1938 of 3,520,000 pounds is one million pounds in excess of the level of consumption. Even though some substitution of Type 62 for Type 61 may take place, some curtailment of production in 1939 appears desirable.

Table 1.- United States tobacco, all types: Acreage, production, stocks, supply, disappearance, ratio of supply to disappearance, and price, average 1927-36, annual 1933-38

Year	Acreage harvested	Production	Stocks beginning of marketing year, farm-sales weight 1/	Million pounds	Million pounds	Total supply	Disappearance during marketing year	Ratio of total supply to disappearance	Season average farm price per pound
	1,000 acres	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Ratio	Cents	
1927-36									
10-yr. average.....	1,680.8	1,325.2	1,986.3	3,311.5	1,302.0	2.6	16.7		
1933.....	1,738.4	1,371.1	2,136.8	3,507.9	1,221.1	2.9	13.0		
1934.....	1,278.5	2/1,055.1	2,285.8	3,341.9	1,121.9	3.0	21.3		
1935.....	1,437.1	1,297.2	2,220.0	3,517.2	1,323.1	2.7	18.4		
1936.....	1,438.3	1,155.3	2,194.1	3,349.4	1,323.1	2.5	23.6		
1937.....	1,731.6	1,553.4	2,026.3	3,579.7	3/ 1,403.4	2.6	20.5	4/	
1938.....	4/ 1,680.8	4/1,484.7	3/ 2,176.3	3/ 3,661.0	---	--	--		

1/ Stocks held on farms not included. Marketing or crop year, flue-cured, July-June; Maryland, beginning January of year following production; other types, October-September.

2/ Quantity marketed.

3/ Estimated.

4/ Preliminary. Acreage estimates of July 1 and production estimates as of October 1.

Classes and types do not add, in all cases, to totals shown in this table due to rounding. In Tables 4, 8, 10, 11, and 12 production or stocks, and therefore supply and disappearance, may differ by one point from type figures previously published due to rounding to totals for the class.

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Table 2.-Flue-cured tobacco, Types 11-14: Acreage, production, stocks, supply, disappearance, ratio of supply to disappearance, and price, average 1927-36, annual 1933-38

Year	: Acreage : :harvest- : ed :	: Produc- : tion :	: Stocks : : July 1, : : farm- : : sales : : weight :	: Total : : supply : : July 1 : :	:Disappear- : ance, year : : begin- : : ning : : July 1 :	:Ratio of : : total : : supply : : to disap- : : pearance :	: Season : : average : : farm : : price per : : pound
	: 1,000 : acres	Million pounds	Million pounds	Million pounds	Million pounds	Ratio	Cents
1927-36 :							
10-yr.av.	924.8	690.1	731.3	1,421.4	655.6	2.2	17.3
1933 ...:	920.6	733.4	675.8	1,409.2	646.2	2.2	15.3
1934 ...:	684.2	556.8	763.0	1,319.8	567.2	2.3	27.3
1935 ...:	874.0	811.2	752.6	1,563.8	692.5	2.3	20.0
1936 ...:	864.5	682.8	871.3	1,554.1	670.9	2.3	22.2
1937 ...:	973.3	854.9	883.2	1,738.1	783.8	2.2	23.0
1938 <u>1/</u> :	934.0	812.6	954.3	1,766.9	---	---	---

1/ Preliminary. Acreage estimate as of July 1 and production estimate as of October 1.

Table 3.-Fire-cured tobacco, Types 21-24: Acreage, production, stocks, supply, disappearance, ratio of supply to disappearance, and price, average 1927-36, annual 1933-38

Year	: Acreage : :harvest- : ed :	: Produc- : tion :	: Stocks : : Oct. 1, : : farm- : : sales : : weight :	: Total : : supply : : Oct. 1 : :	:Disappear- : ance, year : : begin- : : ning : : Oct. 1 :	:Ratio of : : total : : supply : : to disap- : : pearance :	: Season : : average : : farm : : price per : : pound
	: 1,000 : acres	Million pounds	Million pounds	Million pounds	Million pounds	Ratio	Cents
1927-36 :							
10-yr.av.	177.7	139.5	194.0	333.5	146.8	2.3	10.4
1933 ...:	168.3	128.4	208.7	337.1	137.1	2.5	9.1
1934 ...:	152.0	<u>1/</u> 126.4	200.0	326.4	102.5	3.2	10.8
1935 ...:	142.6	117.4	223.9	341.3	133.3	2.6	9.2
1936 ...:	126.7	99.7	208.0	307.7	137.0	2.2	12.3
1937 ...:	141.5	117.4	170.7	288.1	<u>2/</u> 124.1	2.3	<u>3/</u> 10.7
1938 ...:	<u>3/</u> 127.0	<u>3/</u> 97.0	<u>2/</u> 164.0	<u>2/</u> 261.0	---	---	---

1/ Quantity marketed.

2/ Estimated.

3/ Preliminary. Acreage estimate as of July 1 and production estimate as of October 1.

Table 4.- Fire-cured tobacco: Acreage, production, stocks, supply, disappearance, and price, by types, average 1927-36, annual 1933-38

Year	Acreage harvested : 1,000 : <u>acres</u>	Production : Million : <u>pounds</u>	Stocks Oct. 1, farm-sales weight : Million : <u>pounds</u>	Total supply Oct. 1: : Million : <u>pounds</u>	Disappear- ance, year beginning Oct. 1 : Million : <u>pounds</u>	Season average farm price per pound : <u>Cents</u>
<u>Virginia fire-cured, Type 21</u>						
1927-36						
10-yr. av....	29.2	21.8	39.4	61.2	25.7	10.1
1933.....	32.8	24.9	31.9	56.8	23.9	6.9
1934.....	22.5	<u>1/</u> 17.7	32.9	50.6	19.8	12.2
1935.....	23.5	20.5	30.8	51.3	20.0	10.2
1936.....	23.5	18.1	31.3	49.4	21.3	13.2
1937.....	24.5	19.4	28.1	47.5	<u>2/</u> 20.5	<u>3/</u> 10.7
1938.....	<u>3/</u> 21.6	<u>3/</u> 16.8	<u>2/</u> 27.0	<u>2/</u> 43.8	---	---
<u>Kentucky and Tennessee fire-cured, Type 22</u>						
1927-36						
10-yr. av....	101.4	81.3	<u>4/</u> 120.8	202.1	<u>4/</u> 80.7	11.6
1933.....	98.0	78.5	144.2	222.7	92.5	10.5
1934.....	88.5	<u>1/</u> 75.4	130.2	205.6	57.0	11.3
1935.....	83.0	68.1	148.6	216.7	82.0	9.7
1936.....	70.0	56.4	134.7	191.1	80.9	13.4
1937.....	80.0	67.7	110.2	177.9	<u>2/</u> 72.9	<u>3/</u> 11.5
1938.....	<u>3/</u> 72.0	<u>3/</u> 53.6	<u>2/</u> 105.0	<u>2/</u> 158.6	--	--
<u>Kentucky and Tennessee fire-cured, Type 23</u>						
1927-36						
10-yr. av....	40.4	31.2	<u>4/</u> 31.4	62.6	<u>4/</u> 31.8	8.1
1933.....	33.5	22.0	28.1	50.1	18.0	6.8
1934.....	36.5	<u>1/</u> 29.5	32.1	61.6	21.1	8.9
1935.....	32.5	25.8	40.5	66.3	27.8	7.4
1936.....	30.5	23.2	38.5	61.7	30.9	9.3
1937.....	34.5	28.2	30.8	59.0	<u>2/</u> 27.7	<u>3/</u> 8.9
1938.....	<u>3/</u> 30.9	<u>3/</u> 24.4	<u>2/</u> 31.3	<u>2/</u> 55.7	---	---
<u>Henderson fire-cured, Type 24</u>						
1927-36						
10-yr. av....	6.7	5.2	4.1	9.3	5.9	7.7
1933.....	4.0	3.0	4.5	7.5	2.7	6.5
1934.....	4.5	<u>1/</u> 3.8	4.8	8.6	4.6	8.0
1935.....	3.6	3.0	4.0	7.0	3.5	6.4
1936.....	2.7	2.0	3.5	5.5	3.9	8.9
1937.....	2.5	2.1	1.6	3.7	<u>2/</u> 3.0	<u>3/</u> 7.2
1938.....	<u>3/</u> 2.5	<u>3/</u> 2.2	<u>2/</u> .7	<u>2/</u> 2.9	---	---

1/ Quantity marketed.2/ Estimated.3/ Preliminary. Acreage estimate as of July 1 and production estimate as of October 1.4/ 8-year average, 1929-36.

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Table 5.- Burley tobacco, Type 31: Acreage, production, stocks, supply, disappearance, ratio of supply to disappearance, and price, average 1927-36, annual 1933-38

Year	Acreage harvested	Pro- duction	Stocks Oct. 1, farm-sales weight	Total supply Oct. 1	Disappear- ance, year beginning Oct. 1	Ratio of total supply to disap- pearance	Season average farm price per pound
	1,000 acres	Million pounds	Million pounds	Million pounds	Million pounds	Ratio	Cents
1927-36							
10-yr. av.	376.0	293.1	595.7	888.8	288.5	3.1	19.7
1933	501.5	377.5	720.3	1,097.8	277.5	4.0	10.5
1934	303.5	1/234.2	820.3	1,054.5	284.6	3.7	16.9
1935	278.9	220.9	769.9	990.8	309.1	3.2	19.1
1936	302.3	219.6	681.7	901.3	329.5	2.7	35.7
1937	441.6	402.7	571.8	974.5	2/312.5	3.1	3/ 20.1
1938	3/443.0	3/395.1	2/662.0	2/1,057.1	---	---	---

1/ Quantity marketed.

2/ Estimated.

3/ Preliminary. Acreage estimate as of July 1 and production estimate as of October 1

Table 6.- Maryland tobacco, Type 32: Acreage, production, stocks, supply, disappearance, ratio of supply to disappearance, and price, average 1927-36, annual 1933-38

Year	Acreage harvested	Pro- duction	Stocks Jan. 1, farm-sales weight	Total supply Jan. 1	Disappear- ance, year beginning Jan. 1	Ratio of total supply to disap- pearance	Season average farm price per pound
	1,000 acres	Million pounds	Million pounds	Million pounds	Million pounds	Ratio	Cents
1927-36							
10-yr. av.	35.4	25.6	27.6	53.2	23.0	2.3	21.7
1933	37.0	22.2	38.9	61.1	25.1	2.4	17.8
1934	36.4	26.2	36.0	62.2	23.6	2.6	17.5
1935	37.0	28.7	38.6	67.3	28.8	2.3	20.0
1936	37.5	30.8	38.5	69.3	28.2	2.5	25.4
1937	36.0	25.2	41.1	66.3	2/ 29.3	2.3	3/ 22.0
1938	3/38.5	3/ 30.0	2/37.0	2/67.0	---	---	---

1/ Stocks as of January 1 of year following production; disappearance beginning January 1 of year following production.

2/ Estimated.

3/ Preliminary. Acreage estimate as of July 1 and production estimate as of October 1.

Table 7.-Dark air-cured tobacco, Types 35-37: Acreage, production, stocks, supply, disappearance, ratio of supply to disappearance, and price, average 1927-36, annual 1933-38

Year	: :Acreage :harvest- : ed :	: :Produc- : tion :	: Stocks : : Oct. 1, : farm- : sales : weight	: : Total : supply : Oct. 1 :	:Disappear- : ance, year : begin- : ning : Oct. 1	:Ratio of : total : supply : to disap- : pearance	: Season : average : farm : price per : pound
	: 1,000 : <u>acres</u>	Million : <u>pounds</u>	Million : <u>pounds</u>	Million : <u>pounds</u>	Million : <u>pounds</u>	<u>Ratio</u>	<u>Cents</u>
1927-36	:	:	:	:	:	:	:
10-yr.av.:	54.9	43.4	75.0	118.4	49.5	2.4	8.6
1933	40.7	31.0	78.8	102.8	36.5	3.0	7.3
1934	45.6	<u>1</u> /38.3	73.3	111.6	41.9	2.7	7.6
1935	36.7	31.0	69.7	100.7	38.5	2.6	8.0
1936	34.1	24.6	62.2	86.8	38.6	2.2	15.3
1937	52.9	47.4	48.2	95.6	<u>2</u> /35.6	2.7	<u>3</u> /8.1
1938	<u>3</u> /44.6	<u>3</u> /35.7	<u>2</u> /60.0	<u>2</u> /95.7	---	---	---

1/ Quantity marketed.

2/ Estimated.

3/ Preliminary. Acreage estimate as of July 1 and production estimate as of October 1.

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Table 8.- Dark air-cured tobacco: Acreage, production, stocks, supply, disappearance, and price, by types, average 1927-36, annual 1933-38

Year	Acreage harvested	Production	Stocks Oct. 1, farm-sales weight	Total supply Oct. 1	Disappearance, year beginning Oct. 1	Season average farm price, per pound
	1,000 acres	Million pounds	Million pounds	Million pounds	Million pounds	Cents
<u>One Sucker, Type 35</u>						
1927-36						
10-yr. av....	23.9	19.1	32.9	52.0	21.3	8.7
1933.....	22.9	17.9	33.3	51.2	16.4	6.7
1934.....	21.2	<u>1/</u> 18.1	34.8	52.9	20.2	6.9
1935.....	15.6	13.0	32.7	45.7	16.9	8.2
1936.....	14.8	10.8	28.8	39.6	15.8	16.3
1937.....	27.1	24.6	23.8	48.4	<u>2/</u> 15.4	<u>3/</u> 7.4
1938.....	<u>3/</u> 24.2	<u>3/</u> 19.0	<u>2/</u> 33.0	<u>2/</u> 52.0	---	---
<u>Green River, Type 36</u>						
1927-36						
10-yr. av..	26.6	21.1	37.5	58.6	24.4	8.5
1933.....	15.0	11.1	41.5	52.6	16.7	7.9
1934.....	21.0	<u>1/</u> 17.5	35.9	53.4	19.1	8.1
1935.....	18.0	15.2	34.3	49.5	18.8	7.3
1936.....	16.0	11.2	30.7	41.9	19.9	14.4
1937.....	22.0	19.8	22.0	41.8	<u>2/</u> 17.8	<u>3/</u> 9.0
1938.....	<u>3/</u> 17.6	<u>3/</u> 14.5	<u>2/</u> 24.0	<u>2/</u> 38.5	---	---
<u>Virginia sun-cured, Type 37</u>						
1927-36						
10-yr. av..	4.4	3.2	4.6	7.8	3.8	10.0
1933.....	2.8	2.0	4.0	6.0	3.4	8.5
1934.....	3.4	2.7	2.6	5.3	2.6	9.7
1935.....	3.1	2.8	2.7	5.5	2.8	11.0
1936.....	3.3	2.6	2.7	5.3	2.9	15.1
1937.....	3.8	3.0	2.4	5.4	<u>2/</u> 2.4	<u>3/</u> 8.9
1938.....	<u>3/</u> 2.8	<u>3/</u> 2.2	<u>2/</u> 3.0	<u>2/</u> 5.2	---	---

1/ Quantity marketed.

2/ Estimated

3/ Preliminary. Acreage estimate as of July 1 and production estimate as of October 1.

Table 9.- Cigar tobacco, all types: Acreage, production, stocks, supply, disappearance, ratio of supply to disappearance, and price, average 1927-36, annual 1933-38

Year	Acreage harvested	Production Million pounds	Stocks Oct. 1, farm-sales weight	Total supply Oct. 1	Disappearance, beginning Oct. 1	Ratio of total supply to disap- pearance	Season average farm price per pound
	1,000 acres	Million pounds	Million pounds	Million pounds	Million pounds	Ratio	Cents
1927-36							
10-yr. av.	111.1	132.9	368.4	501.3	136.3	3.7	16.1
1933	70.0	78.4	414.3	492.7	98.5	5.0	11.0
1934	56.8	73.2	394.2	467.4	102.1	4.6	16.8
1935	67.9	87.9	365.3	453.2	120.8	3.7	17.0
1936	73.2	97.9	332.4	430.3	119.1	3.6	19.4
1937	86.3	105.8	311.2	417.0	2/ 118.0	3.5	18.1
1938	3/ 93.7	3/ 114.3	2/ 299.0	2/ 413.3	---	---	---

1/ Stocks held on farms not included.

2/ Estimated.

3/ Preliminary. Acreage estimate as of July 1 and production estimate as of October 1; production shown here includes an estimated storm loss of 6,500,000 pounds.

Table 10.- Cigar filler tobacco, Types 41-45: Acreage, production, stocks, supply, disappearance, and price, by types, average 1927-36, annual 1933-38

Total cigar filler, Types 41-45							
Year	: Acreage harvested	: Production	: Stocks Oct. 1, farm-weight 1/	: Total supply Oct. 1	: Disappearance, year beginning Oct. 1	: Season average farm price per pound	
	: 1,000 acres	: Million pounds	: Million pounds	: Million pounds	: Million pounds		: Cents
1927-36							
10-yr.av.	: 54.9	60.3	2/162.7	223.0	2/ 60.6		9.6
1933	: 36.2	34.2	177.4	211.6	41.9		5.4
1934	: 31.8	38.1	169.7	207.8	39.4		9.0
1935	: 37.8	46.8	168.4	215.2	50.6		9.7
1936	: 37.8	47.3	164.6	211.9	50.8		11.0
1937	: 40.7	45.6	161.1	206.7	3/ 56.7	4/	9.9
1938	:4/ 41.3	4/ 49.1	3/150.0	3/ 199.1	----		---
Pennsylvania Seedleaf, Type 41							
1927-36							
10-yr.av.	: 31.8	39.3	100.9	140.2	38.2		9.4
1933	: 22.0	21.4	112.5	133.9	29.9		5.0
1934	: 17.7	21.2	104.0	125.2	25.3		9.3
1935	: 20.5	28.2	99.9	128.1	25.9		11.0
1936	: 23.0	33.3	102.2	135.5	28.1		11.5
1937	: 23.5	28.7	107.4	136.1	3/ 33.1	4/	10.4
1938	:4/ 24.0	4/ 32.4	3/103.0	3/ 135.4	----		----
Miami Valley, Types 42-44							
1927-36							
10-yr.av.	: 22.1	19.9	59.0	78.9	21.4		9.8
1933	: 14.1	12.7	62.4	75.1	11.7		6.0
1934	: 13.6	16.3	63.4	79.7	13.9		8.6
1935	: 16.2	17.4	65.8	83.2	23.0		7.2
1936	: 14.0	13.2	60.2	73.4	21.7		9.5
1937	: 16.1	15.7	51.7	67.4	3/ 22.8	4/	8.8
1938	:4/ 16.1	4/ 15.3	3/ 44.6	3/ 59.9	----		----
Georgia and Florida sun-grown, Type 45							
1927-36							
10-yr.av.	: 1.0	1.1	5/ 2.8	3.9	5/ 1.0		15.5
1933	: .1	.1	2.5	2.6	.3		11.0
1934	: .5	.6	2.3	2.9	.2		12.0
1935	: 1.1	1.2	2.7	3.9	1.7		13.5
1936	: .8	.8	2.2	3.0	1.0		13.5
1937	: 1.1	1.2	2.0	3.2	3/ .8	4/	13.5
1938	:4/ 1.2	4/ 1.4	3/ 2.4	3/ 3.8	----		----

1/ Stocks held on farms not included. Data on farm stocks, which have considerable bearing on disappearance in the case of some types of cigar leaf, are not available. 2/ Includes 8-year average, 1929-36, for Type 45. 3/ Estimated. 4/ Preliminary. Acreage estimates as of July 1 and production estimates as of October 1. 5/ 8-year average, 1929-36.

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Table 11.- Cigar binder tobacco, Types 51-55: Acreage, production, stocks, supply, disappearance, and price, by types, average 1927-36, annual 1933-38

Total cigar binder, Types 51-55						
Year	: Acreage : : harvested :	: Produc- : tion :	: Stocks : : Oct. 1 : : farm-sales : : weight 1/ :	: Total : : supply : : Oct. 1 :	: Disappear- : : ance, year : : beginning : : Oct. 1 :	: Season : : average : : farm price : : per pound :
	: 1,000 : : acres :	Million : pounds	Million : pounds	Million : pounds	Million : pounds	Cents
1927-36						
10-yr. av.	: 47.0	63.2	2/ 190.5	253.7	2/ 66.7	13.6
1933	: 27.8	38.1	219.2	257.3	47.6	8.6
1934	: 18.0	27.8	209.7	237.5	54.1	12.1
1935	: 22.1	33.3	183.4	216.7	59.9	12.8
1936	: 26.4	41.2	156.8	198.0	60.7	14.7
1937	: 35.6	51.2	137.3	188.5	3/ 52.5	4/ 13.3
1938	: 4/ 41.6	4/ 55.2	3/ 136.0	3/ 191.2	--	--
<hr/>						
	Connecticut Valley Broadleaf, Type 51					
1927-36						
10-yr. av.	: 9.6	14.3	36.1	50.4	15.1	19.0
1933	: 7.4	11.1	41.0	52.1	12.3	13.0
1934	: 5.3	9.0	39.8	43.8	13.3	17.0
1935	: 6.3	10.7	35.5	46.2	12.0	18.5
1936	: 7.5	12.3	34.2	47.0	14.1	20.5
1937	: 9.1	14.0	32.9	46.9	3/ 12.2	4/ 15.2
1938	: 4/ 8.8	4/ 10.6	3/ 34.7	2/ 45.3	--	--
<hr/>						
	Connecticut Valley Havana Seed, Type 52					
1927-36						
10-yr. av.	: 9.1	13.4	37.0	50.4	15.7	18.3
1933	: 6.7	10.0	38.6	48.6	10.8	9.7
1934	: 3.6	5.9	37.8	43.7	12.9	15.6
1935	: 4.1	6.7	30.8	37.5	11.4	17.4
1936	: 4.9	8.3	26.1	34.4	10.8	17.9
1937	: 6.6	10.2	23.6	32.3	3/ 9.3	4/ 16.3
1938	: 4/ 6.5	4/ 8.2	3/ 24.5	2/ 32.7	--	--
<hr/>						
	New York and Pennsylvania Havana Seed, Type 53					
1927-36						
10-yr. av.	: 1.2	1.5	3.1	4.6	1.6	11.1
1933	: .8	1.0	4.3	5.3	2.2	4.2
1934	: .3	.4	3.1	3.5	1.5	8.2
1935	: .5	.7	2.0	2.7	.7	10.3
1936	: .8	1.1	2.0	3.1	1.0	10.6
1937	: 1.1	1.5	2.1	3.6	3/ 1.6	4/ 10.1
1938	: 4/ 1.4	4/ 1.9	3/ 2.0	3/ 3.9	--	--

continued -

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Table 11.- Cigar binder tobacco, Types 51-55: Acreage, production, stocks, supply, disappearance, and price, by types, average 1927-36, annual 1933-38 - Cont'd

Southern Wisconsin, Type 54							
Year	: Acreage : :harvested:	: Produc- : :tion	: Stocks : : Oct. 1 : :farm-sales : :weight 1/ :	: Total : : supply : : Oct. 1 :	:Disappear- : :ance, year : :beginning : : Oct. 1 :	: Season : : average : :farm price : :per pound	
	: 1,000 : : acres	Million : pounds	Million : pounds	Million : pounds	Million : pounds		Cents
1927-36							
10-yr. av.:	15.9	20.4	5/ 69.7	90.1	5/ 20.0		8.7
1933	8.4	10.5	80.2	90.7	9.4		5.5
1934	5.2	7.2	81.3	88.5	14.9		6.0
1935	6.0	8.4	73.6	82.0	20.6		6.6
1936	7.2	11.0	61.4	72.4	21.6		8.0
1937	11.0	14.5	50.8	65.3	3/ 20.3	4/10.5	
1938	4/ 15.1	4/21.1	3/ 45.0	3/ 66.1	--	--	
Northern Wisconsin, Type 55							
1927-36							
10-yr. av.:	11.2	13.6	5/ 44.6	58.2	5/ 14.3		10.4
1933	4.5	5.5	55.1	60.6	12.9		4.8
1934	3.6	5.3	47.7	53.0	11.5		8.4
1935	5.2	6.8	41.5	48.3	15.2		7.1
1936	6.0	8.0	33.1	41.1	13.2		12.0
1937	7.8	11.0	27.9	38.9	3/ 9.1	4/12.3	
1938	4/ 9.8	4/13.4	3/ 29.8	3/ 43.2	--	--	

1/ Stocks held on farms not included. Data on farm stocks, which have considerable bearing on disappearance in the case of some types of cigar leaf, are not available.

2/ Includes 3-year average 1929-36, for Types 54 and 55.

3/ Estimated.

4/ Preliminary. Acreage estimate as of July 1 and production estimate as of October 1; production shown here includes an estimated storm loss for Type 51 of 3,600,000 pounds and for Type 52 of 2,000,000 pounds.

5/ 8-year average, 1929-36.

Tobacco Outlook

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Table 12.- Cigar wrapper tobacco, Types 61-62: Acreage, production, stocks, supply, disappearance, and price, by types, average 1927-36, annual 1933-38

Year	: Acreage : :harvested:	: Produc- : :tion :	: Stocks : : Oct. 1, : :farm-sales : :weight 1/ :	: Total : : supply : : Oct. 1 :	:Disappear- : :ence, year : :beginning : : Oct. 1 :	: Season : : average : :farm price : :per pound :
	: 1,000 : : acres :	: Million : : pounds :	: Million : : pounds :	: Million : : pounds :	: Million : : pounds :	: Cents :
1927-36 2/	Total cigar wrapper, Types 61-62					
10-yr. av.	: 9.2	: 9.4	: 15.2	: 24.6	: 9.0	: 69.5
1933	: 6.0	: 6.1	: 17.7	: 23.8	: 9.0	: 57.6
1934	: 7.0	: 7.3	: 14.8	: 22.1	: 8.6	: 75.1
1935	: 8.0	: 7.8	: 13.5	: 21.3	: 10.3	: 79.7
1936	: 9.0	: 9.4	: 11.0	: 20.4	: 7.6	: 82.6
1937	: 10.0	: 9.0	: 12.8	: 21.8	3/ 8.8	4/ 87.2
1938	: 4/ 10.8	: 4/ 10.0	3/ 13.0	3/ 23.0	---	---
Connecticut Valley shade-grown, Type 61						
1927-36						
10-yr. av.	: 6.3	: 6.4	: 9.7	: 16.1	: 6.4	: 78.5
1933	: 4.7	: 4.9	: 12.3	: 17.2	: 7.2	: 64.0
1934	: 5.0	: 5.5	: 10.0	: 15.5	: 6.8	: 80.0
1935	: 5.7	: 5.7	: 8.7	: 14.4	: 7.6	: 85.0
1936	: 6.4	: 6.7	: 6.8	: 13.5	: 6.6	: 88.0
1937	: 7.2	: 6.5	: 6.9	: 13.4	3/ 7.0	4/ 92.0
1938	: 4/ 7.6	: 4/ 6.5	3/ 6.4	3/ 12.9	---	---
Georgia and Florida shade-grown, Type 62						
1927-36						
10-yr. av.	: 2.7	: 2.9	5/ 5.5	: 8.4	5/ 2.6	: 52.6
1933	: 1.3	: 1.2	: 5.4	: 6.6	: 1.8	: 32.0
1934	: 2.0	: 1.8	: 4.8	: 6.6	: 1.8	: 60.0
1935	: 2.3	: 2.1	: 4.8	: 6.9	: 2.7	: 65.0
1936	: 2.6	: 2.7	: 4.2	: 6.9	: 1.0	: 69.0
1937	: 2.8	: 2.5	: 5.9	: 8.4	3/ 1.8	4/ 75.0
1938	: 4/ 3.2	: 4/ 3.5	3/ 6.6	3/ 10.1	---	---

1/ Stocks held on farms not included. Data on farm stocks, which have a considerable bearing on disappearance in the case of some types of cigar leaf, are not available.

2/ Acreage, production, and price include Type 65 for the years 1927-29. Stocks and disappearance include an 8-year average, 1929-36, for Type 62.

3/ Estimated.

4/ Preliminary. Acreage estimate as of July 1 and production estimate as of October 1; production shown here for Type 61 includes an estimated storm loss of 900,000 pounds.

5/ 8-year average, 1929-36.

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Table 13.- United States exports of tobacco to principal importing countries,
by types, average 1927-36, annual 1933-37 1/

FLUE-CURED, TYPES 11-14

Country to which exported :	10-year average: 1927-36 :	1933 :	1934 :	1935 :	1936 2/ :	1937 2/ :
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
United Kingdom :	168,126	170,507	152,389	226,631	170,478	237,018
China 3/ :	80,936	87,029	28,976	24,039	43,096	40,162
Australia :	16,519	10,841	14,818	18,120	19,407	18,014
Germany :	7,759	7,838	1,102	6,619	2,726	4,641
Netherlands :	7,843	11,548	3,604	7,107	9,017	7,928
Japan :	9,072	7,753	9,370	6,702	9,909	1,718
Canada :	9,534	7,949	7,817	4,143	3,748	3,679
British India :	3,206	2,236	1,659	2,299	2,901	2,968
Belgium :	3,063	3,209	1,878	2,365	4,809	5,557
Other countries:	30,031	21,420	22,861	24,767	36,549	40,234
Total :	336,089	330,330	244,474	322,792	302,640	361,919

VIRGINIA FIRE-CURED, TYPE 21

United Kingdom :	1,533	1,143	1,620	1,382	1,603
Australia :	629	359	42	60	649
Germany :	1,873	1,479	1,293	1,213	993
Netherlands :	1,112	1,314	445	297	315
China :	66	10	10	125	6
Norway :	1,778	1,812	1,539	1,870	2,090
Canada :	136	43	114	176	101
Sweden :	967	1,805	1,169	1,537	1,161
Denmark :	255	505	250	150	75
Belgium :	1,114	1,030	906	421	425
Portugal :	379	382	600	258	267
France :	385	0	56	20	34
Other countries:	3,663	2,078	2,237	2,337	1,773
Total :	13,890	11,960	10,281	9,396	9,492

KENTUCKY AND TENNESSEE FIRE-CURED, TYPES 22,23 AND 24

France :	21,337	20,267	17,515	13,915	18,986
Spain :	6,961	5,416	12,222	7,844	0
Belgium :	6,992	10,699	5,502	4,606	6,587
Italy :	1,307	922	574	101	780
Netherlands :	6,221	3,122	2,114	2,296	6,227
Germany :	6,938	6,314	7,015	3,570	2,272
United Kingdom :	4,804	2,174	3,470	2,842	3,278
Argentina :	1,273	535	141	35	124
Switzerland :	1,743	3,539	1,548	1,520	2,176
Other countries:	14,436	10,048	10,164	11,087	9,963
Total :	72,012	63,036	60,265	52,866	50,393

Continued -

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Table 13.- United States exports of tobacco to principal importing countries, by types, average 1927-36, annual 1933-37 1/ Continued

BURLEY, TYPE 31

Country to which exported :	10-year average: 1927-36 :	1933 :	1934 :	1935 :	1936 <u>2/</u> :	1937 <u>2/</u> :
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
Belgium :	3,306	5,012	3,554	2,293	2,928	
Portugal :	1,941	2,497	2,659	2,111	2,021	
United Kingdom :	338	207	159	219	182	
Netherlands :	736	1,927	1,165	586	676	
Germany :	416	478	550	399	426	
Newfoundland and Labrador :	266	273	282	265	390	
Australia :	487	275	521	314	1,289	
Other countries:	2,418	3,274	3,140	2,741	3,275	
Total :	9,908	13,943	12,030	8,928	11,187	

MARYLAND, TYPE 32 (including eastern Ohio)

France :	3,298	2,066	162	556	880	746
Netherlands :	2,423	2,763	3,267	1,623	2,434	2,030
Germany :	392	608	280	398	243	78
Belgium :	789	1,270	894	161	488	774
Italy :	253	143	109	85	0	2
Switzerland :	1,552	1,899	1,684	1,174	1,067	1,290
Other countries:	1,001	437	707	693	988	401
Total :	9,708	9,186	7,103	4,690	6,100	5,321

1/ This table has been prepared on a crop-year basis as follows: Flue-cured, July-June; Maryland, beginning January 1 of year following production (i.e., 5,321,000 pounds are exports beginning January 1937 and are of the 1936 crop); other types, October-September. These figures do not include a small amount of several types shipped to Puerto Rico; no shipments of leaf tobacco were made to Alaska or Hawaii.

2/ Preliminary.

3/ Includes Hong Kong and Kwantung.

Compiled from Monthly Summary of Foreign Commerce of the United States and official records of the Bureau of Foreign and Domestic Commerce.

Table 14.- United States exports of tobacco by types, average
1927-36, annual 1933-37 1/

Type	: 10-year : average : 1927-36 :	: 1933 : :	: 1934 : :	: 1935 : :	: 1936 <u>2/</u> : :	: 1937 <u>2/</u> : :
	: Million : pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
Flue-cured	: 336.1	330.3	244.5	322.8	302.6	361.9
Virginia fire-cured	: 13.9	12.0	10.3	9.9	9.5	<u>3/</u> 7.4
Kentucky and Tennessee fire-cured	: 72.0	63.0	60.3	52.9	50.4	<u>3/</u> 43.3
Burley	: 9.9	13.9	12.0	8.9	11.2	<u>3/</u> 10.1
Maryland <u>4/</u>	: 9.7	9.2	7.1	4.7	6.1	5.3
One Sucker	: 1.7	1.0	1.1	.8	.5	<u>3/</u> .2
Green River	: 5.1	2.4	3.4	3.7	2.2	<u>3/</u> 3.6
Cigar leaf	: 1.9	1.5	1.2	.7	.7	<u>3/</u> 1.2
Black fat, water baler and dark African	: 7.8	8.3	9.7	10.1	9.5	<u>3/</u> 7.1
Perique	: <u>5/</u> .1	.1	.1	.1	.1	<u>3/</u> .1
Stems, trimmings, and scrap	: 17.0	18.6	16.2	17.5	20.5	<u>3/</u> 14.4

1/ This table has been prepared on a crop-year basis as follows: Flue-cured, July-June; Maryland, beginning January 1 of the year following production (i.e., 5,300,000 pounds are exports beginning January 1937 and are of the 1936 crop); other types, October-September.

2/ Preliminary.

3/ Exports for 11 months, October-August, 1937-38.

4/ Includes eastern Ohio, Type 71.

5/ 7-year average.

Compiled from Monthly Summary of Foreign Commerce of the United States and official records of the Bureau of Foreign and Domestic Commerce.

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Table 15.- Withdrawals of small cigarettes and large cigars, and production of smoking and scrap chewing tobacco; average 1927-36, annual 1933-38 1/

Calendar year	Small cigarettes		Smoking tobacco		Large cigars		Scrap chewing	
	: Change :		: Change :		: Change :		: Change :	
	: from pre- :		: from pre- :		: from :		: from pre- :	
	Number	ceding	Quantity	ceding	Number	preceding	Quantity	ceding
		period		period		period		period
			1,000				1,000	
	Billions	Percent	pounds	Percent	Millions	Percent	pounds	Percent
1927-36 :								
10-yr.av.:	118.4		2/190,755		5,692.5		2/ 48,363	
1933 :	111.8	+ 7.9	191,766	+ 0.4	4,591.5	- 2.1	44,724	-10.7
1934 :	125.6	+ 12.4	193,075	+ 0.7	4,868.1	+ 6.0	44,786	+ 0.1
1935 :	134.6	+ 7.2	191,750	- 0.7	5,031.3	+ 3.4	44,007	- 1.7
1936 :	153.2	+ 13.8	194,007	+ 1.2	5,394.0	+ 7.2	45,342	+ 3.0
1937 3/:	162.6	+ 6.1	187,763	- 3.2	5,534.1	+ 2.6	45,132	- 0.5
1st 7 mo.:								
1937 3/:	93.4	+ 6.9	109,695	- 4.2	3,136.6	+ 6.2	26,578	+ .8
1938 3/:	93.6	+ 0.2	111,402	+ 1.6	2,904.9	- 7.4	26,260	- 1.8

Compiled from reports of the Bureau of Internal Revenue.

1/ Including tax-paid withdrawals from Puerto Rico and the Philippines.

2/ Prior to 1931, production of smoking and scrap chewing tobacco was not published separately; 6-year average, 1931-36.

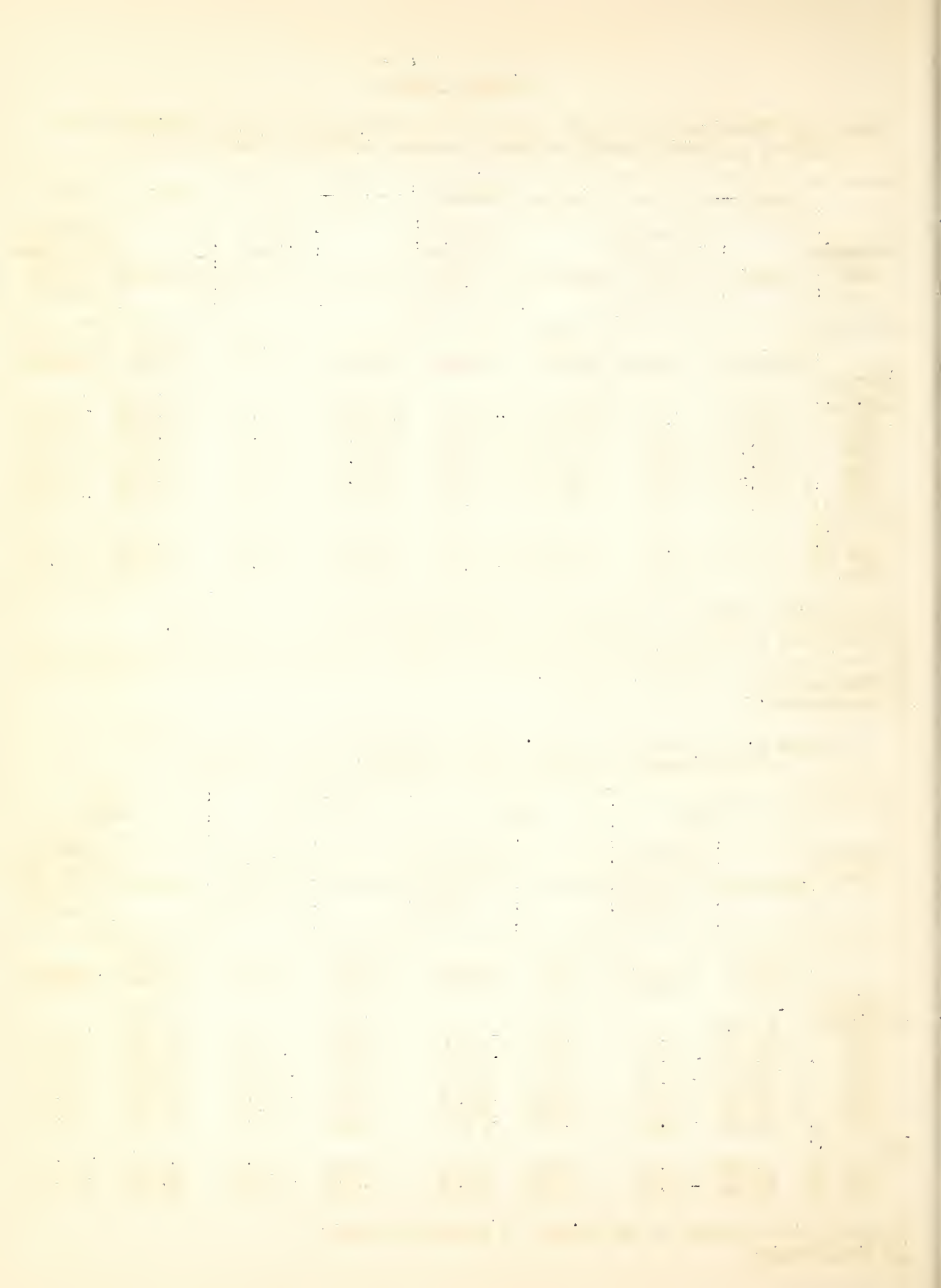
3/ Preliminary.

Table 16.- Production of plug, twist, and fine-cut chewing tobacco, and withdrawals of snuff, average 1927-36, annual 1933-38

Calendar year	Plug		Twist		Fine-cut		Snuff	
	: Change :		: Change :		: Change :		: Change :	
	: from pre- :		: from pre- :		: from :		: from pre- :	
	Quantity	ceding	Quantity	ceding	Quantity	preceding	Quantity	ceding
		period		period		period		period
			1,000		1,000		1,000	
	pounds	Percent	pounds	Percent	pounds	Percent	pounds	Percent
1927-36 :								
10-yr.av.:	77,005		6,603		4,548		38,459	
1933 :	61,361	- 0.9	5,042	+ 2.5	3,120	- 7.0	36,325	- 0.2
1934 :	62,760	+ 2.3	5,080	+ 0.8	2,970	- 4.8	37,165	+ 2.3
1935 :	60,588	- 3.5	5,604	+10.3	4,683	+ 57.7	36,077	- 2.9
1936 :	59,165	- 2.3	6,372	+13.7	5,088	+ 8.6	38,100	+ 5.6
1937 <u>1/</u> :	58,382	- 1.3	6,732	+ 5.6	5,459	+ 7.3	36,934	- 3.1
1st 7 mo.:								
1937 <u>1/</u> :	34,729	+ 1.2	3,978	+ 9.1	3,288	+ 3.8	21,041	- 6.6
1938 <u>1/</u> :	31,848	- 8.3	2,986	-24.9	2,753	- 16.3	21,127	+ 0.4

Compiled from reports of the Bureau of Internal Revenue.

1/ Preliminary.



Release Date
November 3, A.M.

THE OUTLOOK FOR FEED CROPS AND LIVESTOCK 1939

Summary

As a result of an unusually favorable growing season throughout the greater part of the country and an unusually large supply of feed grains and hay carried over from last year, the total supply of all feeds will again be large for the winter and spring feeding season. Total supplies of all feed grains are larger than a year earlier, and about the same as the 1928-32 average. The hay supply is the largest since 1927.

Though livestock numbers have increased somewhat this year, the number of grain consuming animal units on January 1, 1939, is expected to be about 8 percent below the average for the years 1928-32. The supply of feed grains per animal unit, therefore, will again be well above average, and about the same as last year. The supply of hay per animal unit will be the second largest in 30 years.

A smaller production of corn this year compared with a year ago is more than offset by a larger carry-over. The corn supply, therefore, will be somewhat larger than in 1937-38 and 4 percent above the 1928-32 average. Supplies of high protein feeds are about 13 percent below those of last year, but supplies of other byproduct feeds are somewhat larger.

Large supplies and relatively low prices of feed grains are expected to encourage continued liberal feeding of livestock, and further increases in the production of all kinds of meat animals--especially of hogs and fat cattle--and of dairy and poultry products. With a larger livestock population, utilization of feed grains will be somewhat greater in 1938-39 than in 1937-38, which will probably more than offset the larger supplies. Carry-overs into the 1939-40 marketing year, however, are expected to be large, though perhaps somewhat smaller than they were this year.

The general level of feed grain prices in the present marketing year may average somewhat below that of 1937-38. While the effects of the prospective higher loan rate on corn, and the expected improvement in the business situation may cause feed grain prices to advance from the present low level these advances will probably be insufficient to bring the yearly average of all feed grain prices up to the average for 1937-38. Livestock feed price ratios may be expected to continue favorable for livestock producers, at least until the approach of the 1939 harvesting season, and maybe longer if feed grain production is again near average in 1939. As livestock numbers tend to increase toward the pre-drought level, there will be a diminishing of feed grain supplies per animal unit from the present high levels, and livestock feeding ratios will tend to become less favorable for livestock producers.

If there is a marked reduction in wheat acreage in 1939 as a result of the 1939 wheat program, it appears probable that there will be a somewhat corresponding increase in the total acreage devoted to all feeds,

including hay, pasture, and feed grains. The increase in total acreage of feed grains, however, may not be large.

Outlook for Feed Grain, Acreage and Supplies in 1939

The area seeded to feed grains in 1939 may be somewhat greater than the 1938 acreage, but it will probably be considerably below the 1928-32 average for the third consecutive year. Another large carry-over of feed grains is in prospect, however, and if yields are near the levels of 1937 or 1938, supplies again will be large in relation to livestock numbers. If yields are near average during the next 2 or 3 years, feed grain production will continue well above the average of the past 10 years, but will tend to diminish in relation to livestock numbers as the latter increase toward the pre-drought level.

The effectiveness of the wheat program in restricting the seeding of winter wheat may be an important factor in determining the acreage seeded to feed grains in 1939. In the fall of 1937 much of the winter wheat was already seeded before the 1938 acreage allotment was known by farmers. This called for a special provision in the Act which allowed producers to receive payments on their wheat allotment, provided they made a reduction in the total acreage of soil-depleting crops on their farms. This probably caused many producers to reduce their feed grain acreage in order to receive benefit payments under the wheat program. In 1939, wheat growers will not have this incentive to reduce feed grain acreage, and the total feed grain acreage may be increased as long as the farmer stays within his total soil-depleting allotment. It appears probable, therefore, that the total acreage of all foods, including forage, will be increased during the next few years.

On the other hand, feed grain prices are low and farmers in general have on hand a reserve of all kinds of feed, conditions which would tend to discourage expansion in feed grain acreages. Farmers may cooperate with the Agricultural Conservation Program in larger numbers than in the past 2 years, since lower grain prices make the program more attractive to producers. This applies especially to producers in the Corn Belt.

The tendency for producers in the South either to increase or to maintain present feed grain acreages probably will continue. There also probably will be a tendency for producers in the Western Corn Belt, where corn acreage has been very small in the past 2 or 3 years, to expand their corn and other feed grain acreages. It will probably take several years for feed grain and livestock production to get back near the level attained just prior to 1930. Just what the net effect of these various factors will be in increasing or decreasing the total feed grain acreage in 1939 is difficult to predict at this time. It does seem probable, however, that the feed grain acreage seeded next year will be less than the 1927-36 average, although it may be increased somewhat from the small 1938 acreage.

If smaller feed grain acreages continue to be accompanied by high yields during the next few years, as a result of improved production practices and the increased use of hybrid corn, it may be possible for livestock production to regain its pre-drought level, even though there is no material increase in feed grain acreages compared with the past 2 years.

Hybrid corn acreage increasing

In recent years corn hybrids have been increasing in importance in the Corn Belt, and have tended to increase yields in the surplus corn producing States. It has been estimated that nearly one-third of the total acreage of corn in the 11 Corn Belt States was planted to hybrids in 1938. In Indiana, Illinois, and Iowa about half of the total acreage was planted to hybrid corn, in Ohio about one-third, and in Wisconsin and Minnesota about one-fourth. In the other Corn Belt States the percentage of the acreage planted to hybrid corn was small. It has been estimated that hybrid corn, on an average, yields about 7 to 15 percent more than ordinary corn. If hybrid corn continues to outyield other types, the area planted to this corn will expand in the Corn Belt and extend into States outside this area. In this case it will have an increasing influence on average United States corn yields during the next few years.

Feed Supplies in 1938-39

Supplies of feed grains again large

Feed grain production in 1938 totaled about 6 percent smaller than in 1937, when it was about equal to the pre-drought period 1928-32. The smaller production as compared with last year, however, was more than offset by larger carry-overs. The total supply of feed grains, therefore, is estimated to be 4 percent larger than supplies in 1937, and slightly larger than the 1928-32 average.

After taking into account the disappearance of oats and barley during the 3 months July-September, 1938, the total supply available on October 1 was estimated at about 101 million tons, compared with 97 million tons on October 1 last year. This was the largest October 1 supply since 1932. Supplies per grain consuming animal unit on October 1 were slightly smaller than a year earlier, but larger than in any other year since 1925.

Corn supplies larger by 110 million

The October 1 indicated corn crop of 2,459 million bushels, together with the total carry-over of 362 million bushels, makes a total corn supply of 2,821 million bushels. This compares with a total supply of 2,711 million bushels last year. Corn supplies this year are ample for the livestock on farms in nearly all sections. While the drought during August sharply reduced corn yields in a large part of Nebraska and in sections of Missouri, South Dakota, and Kansas, livestock numbers are only 50 to 60 percent of the 1928-32 average in much of this area, and supplies of feed grains per grain consuming animal unit may be near average. In the Eastern Corn Belt States, although livestock numbers are about average,

supplies of feed grains will be above average and will be more than ample to feed the livestock on farms. In other words, the general conditions of the past few years that have caused a restriction in feeding in the Western Corn Belt and some expansion in the Eastern Corn Belt have again been repeated this year, and this will tend to retard the movement back to a normal geographical distribution of livestock production and feeding.

In most areas outside of the Corn Belt, feed grain acreage and production have been either maintained near the pre-drought level or expanded further. In the North Atlantic States the production of corn is about 27 percent larger than the 1928-32 average. In the South Atlantic States the indicated production is slightly lower than a year ago but about 24 percent above the pre-drought average. In the South Central section the indicated corn production is somewhat above the production of any recent year, and is also substantially above the 1928-32 average. In the Western States, where corn production is of minor importance, the indicated 1938 corn crop is the largest since 1933, but is about 27 percent below the 1928-32 average.

Oat supplies below average October 1

Although the 1938 oats crop of 1,042 million bushels was 105 million bushels below the production last year, the carry-over was much larger, and the 1938-39 supply on July 1 slightly exceeded that of 1937-38, but it was about 130 million bushels below the 1928-32 average. Stocks remaining on October 1, which reflect the disappearance from July 1 to October 1, totaled 867 million bushels, which was 74 million bushels below the supply on that date last year and 100 million bushels below the October 1 average for the period 1928-32.

Oats production in both the East North Central and the West North Central sections has declined substantially since 1932. This year's crop in the East North Central section is estimated to be more than 100 million bushels below the 1928-32 average, or a decrease of 25 percent. Production in the West North Central section is estimated to be about 81 million bushels below the 5-year average. In view of the general decline in horse numbers during this period and also in view of the reduction in other classes of livestock as a result of the drought, supplies of oats in relation to the requirements of livestock are not greatly different from those of the pre-drought period.

Barley and grain sorghum supplies

The 1938 barley crop of 253 million bushels was about 33 million bushels larger than the 1937 crop, and the carry-over of old barley was nearly 10 million bushels larger. This resulted in a total supply of 289 million bushels, or a 42 million bushel increase over that of last year. The October indicated yield and the acreage of barley were both larger in most of the important barley States of the mid-West than in the previous year.

The 1938 United States grain sorghum crop of 111 million bushels was 22 million bushels above the 1927-36 average, and 14 million bushels above the production last year. The 1938 indicated crop was above the

1927-36 average in practically all the important producing States, with the greatest percentage increase in Nebraska.

Wheat and rye feeding to continue large

In view of the large 1938 wheat crop, and the resulting low prices, the quantity of wheat fed in the United States during 1938-39 may be somewhat larger than in 1937-38 and also larger than the average for the past 5 years. Throughout most of the West North Central section, the average farm price of wheat on September 15 was below 55 cents per bushel. While the average farm price of corn in this area was generally lower than that of wheat, the quality of the wheat crop was low and much light weight wheat was probably sold below the cash price received for corn. In the part of this area west of the Missouri River, wheat production this year is above average while corn production is much below average. In all of the Western States, wheat prices were much lower than corn prices.

With the harvesting of the large 1938 rye crop, prices of rye declined below corn prices in many of the midwestern States, and below barley prices in a few States. In consequence, rye feeding is expected to continue large and may not be greatly different from the estimated 18 million bushels fed last year.

High protein feeds still above average

About 3,150,000 tons of oilseed cake and meal supplies are indicated for domestic use as feed in 1938-39. This is 15 percent less than the record supplies that were available for feed last season. These smaller prospective supplies, however, are larger than those for any previous season except 1937-38.

Total supplies of cottonseed cake and meal in 1938-39 will be much smaller than in the 1937-38 season. Based on the October 1 forecast of cotton production, only about 1,900,000 tons of cake and meal are expected from the 1938 cottonseed crop, compared with the production of 2,830,000 tons in 1937-38 and 2,031,000 tons in 1936-37. The 1938 production, however, was supplemented by a carry-over on August 1, 1938, equivalent to about 370,000 tons of cake and meal, making a total prospective supply of 2,270,000 tons in 1938-39.

Exports of cottonseed cake and meal in 1938-39 will probably be relatively small. The expansion of cotton production in other countries has resulted in a considerable increase in the commercial supplies of cottonseed and of cottonseed cake and meal for European needs, thereby greatly reducing European demand for cottonseed cake and meal from the United States.

Soybean cake and meal supplies for 1937-38 will be the largest on record. Soybean production in the 6 important commercial producing States was indicated on October 1 at 43,700,000 bushels compared with 38,100,000 in 1937, 27,700,000 in 1936, and 42,400,000 bushels in 1935. The percentage of the soybean crop that has been crushed or exported has continued to increase from 65 percent of the 1935 crop, and 68 percent of the 1936 crop, to probably about 73 percent of the 1937 crop. It is estimated that

about 34 million bushels of the 1938 crop will be crushed. This would be equivalent to over 800,000 tons of soybean cake and meal.

Supplies of linseed cake and meal for domestic use in 1938-39 are expected to be slightly larger than during 1937-38. There will be more meal from domestic flaxseed than last season. It is also probable that the quantity of cake and meal resulting from the crushing of imported flaxseed that will be retained in this country for feeding will be larger than a year ago.

Oilseed cake and meal supplies available for domestic use, 1929-39 1/

Year	: Cottonseed :	: Soybean :	: Linseed :	: Other :	: Total
<u>1/</u>	: <u>3/</u>			: <u>4/</u>	
	: 1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons
1929-30	: 1,879	112	396	142	2,529
1930-31	: 1,861	122	370	115	2,468
1931-32	: 1,680	132	222	66	2,100
1932-33	: 1,678	113	220	84	2,095
1933-34	: 1,392	99	161	123	1,775
1934-35	: 1,544	287	222	209	2,262
1935-36	: 1,551	620	286	183	2,640
1936-37	: 1,931	548	305	223	3,007
1937-38 <u>5/</u>	: 2,614	700	200	107	3,621
1938-39 <u>6/</u>	: 2,000	800	230	120	3,150

1/ Includes production plus imports, less exports. 2/ October-September except for cottonseed cake and meal, which is August-July. 3/ Cottonseed cake and meal used for fertilizer not included. 4/ Includes production of copra, peanut, sesame, hempseed, and babassu cakes and meals, minus net exports of plus net imports of these cakes and meals and any exports of soybean and copra cake and meal. 5/ Partly estimated. 6/ Estimated.

Other byproduct foods

Wheat mill feed supplies are expected to be somewhat larger in 1938-39 than for any season since 1930-31, except for 1936-37, when imports were exceptionally large. Production may be larger than last season. Imports will be larger than the small net imports of only about 1,000 tons last year, when surplus supplies from other countries went mostly to Europe. Net imports totaled 331,000 tons in 1936-37, 204,000 tons in 1935-36, and 270,000 tons in 1934-35.

Supplies of gluten feed and meal are expected to be slightly larger this season than last season, but not so large as in 1936-37. Supplies of brewers' dried grains also probably will be larger than in 1937-38, but the production of distillers' dried grains may be smaller. Larger supplies of dried beet pulp are probable, since the October 1 forecast of sugar beet production is 22 percent larger than the 1937 crop. Rice millfeed supplies probably will be about equal to those of the past season.

Feed Crops and Livestock Outlook

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Supplies of indicated byproduct feeds available for domestic use,
1929-39 1/

Year	:	:	Gluten	:	Distillers'	:	Dried	:	Rice	
beginning	:	Wheat	:	feed and	:	and brewers'	:	beet	:	mill-
July	:	millfeeds	:	meal	:	dried grains	:	pulp	:	feeds
	:	1,000	:	1,000	:	1,000	:	1,000	:	1,000
	:	<u>tons</u>	:	<u>tons</u>	:	<u>tons</u>	:	<u>tons</u>	:	<u>tons</u>
	:		:		:		:		:	
1929	:	5,008	:	671	:		:	211	:	
1930	:	5,105	:	568	:		:	285	:	
1931	:	4,533	:	512	:		:	196	:	<u>2/</u> 90
1932	:	4,453	:	575	:		:	263	:	<u>2/</u> 90
1933	:	4,165	:	575	:		:	182	:	85
1934	:	4,412	:	494	:		:	245	:	92
1935	:	4,578	:	565	:	<u>3/</u> 315	:	226	:	86
1936	:	4,899	:	618	:	368	:	295	:	105
1937	:	4,464	:	539	:	265	:	244	:	120
1938 4/	:	4,700	:	550	:	270	:	280	:	120

1/ Production and net imports of wheat millfeeds and beet pulp. 2/ Partly estimated for 1931-32 and 1932-33. 3/ Data first available for 1935-36.
4/ Estimated.

Hay and Pasture

The hay and pasture situation contrasts sharply with that of recent drought years. Pastures have been good and hay mows are full to overflowing. There was a large carry-over of hay from the 1937 crop, and the 1938 crop is the largest in 10 years. The 1938-39 supply of hay per animal unit is the second largest in 30 years. With good fall pastures, plenty of feed grains, and an abundance of hay per hay-consuming animal unit in 1938, it is reasonable to expect that farm stocks of hay will be large next spring. Supplies may be large again next year, however, since the Agricultural Conservation Program is encouraging the expansion of acreage of grass and legumes for pasture, hay, or soil improvement.

Stands heavy in 1938

Both farm pastures and ranges for the United States as a whole have been the best in recent years. In much of the Great Plains region, where moisture conditions have been much more favorable than usual, prairie grasses have made a remarkable recovery, and pastures have made great improvement. Heavy stands of both seeded and volunteer winter wheat also will afford considerable additional pasturage in Kansas and adjoining States. The relatively large quantity of feed furnished by fall pastures has considerably reduced the early feeding of hay.

The very large 1938 hay crop is primarily the result of high yields per acre rather than of an increase in acreage. For more than 10 years the total harvested acreage of tame hay has fluctuated but little, and in 1938 it was practically the same as in 1927.

The droughts of the 1930 to 1936 period reduced yields, caused shortages of some hay-crop seeds, particularly clover, thinned alfalfa stands in the drought

area, caused extensive loss of new grass and clover seedings, and made it necessary for many farmers to use for pasture some grass lands intended for hay. The shortage was made up in part by cutting large acreages of soybeans and cowpeas for hay and, in some years, by utilizing as hay or forage large acreages of small grains and corn that failed to produce grain. The shortage of hay and pasturage was one of the factors responsible for the heavy marketings of cattle during the 1933 to 1937 period.

Many factors are now tending to increase the acreage of crops that can be cut for hay. The Agricultural Conservation Program encourages the use of additional acreage for growing grasses, legumes, and certain other crops which may be utilized for hay, forage, pasture or soil improvement. The weather during the past two seasons has been favorable for reestablishing the timothy, clover, and alfalfa acreage in areas where new seedings had failed for several years. In the northern portion of the Great Plains area, crested wheat grass has been used to some extent for regrassing cultivated land.

In most areas pastures have been good during 1938 and little land intended for hay was diverted to pasture. The increase in the acreage of soybeans also has expanded the acreage of crops available for hay production. Supplies of red clover seed and of other hay crop seeds are large, and prices of these seeds are rather low. Barring extensive drought, a large acreage of grass and legumes will be available for hay production in 1939, and supplies are likely to continue to be ample considering the number of livestock to be fed.

Hay requirements to increase

Looking farther ahead, the outlook is that hay requirements will increase for several years because of the present rather general tendency to increase the number of cattle. In mid-September, beef cattle prices were higher in relation to prices of hay and of grain (with the exception of 1932) than in the corresponding period of any of the past 27 years for which records are available. Conditions now resemble those prevailing in 1928 and 1929, when the last big increase in the number of cattle began.

There have been important changes in the acreage of several kinds of tame hay in recent years. The acreage of alfalfa hay is 12 percent above the 1927-36 average. Clover-timothy hay acreage, which was reduced one-third by the series of droughts, is now increasing, but is 13 percent below the 1927-36 average. Soybean hay acreage in the Corn Belt was greatly increased during the drought year and is still at a high level. In 10 years, the eastern Cotton Belt, which formerly purchased hay from Northern States, has doubled its tame hay acreage (largely annual legumes). The acreage of lespedeza used for hay increased from 325,000 acres in 1928 to more than 2 million acres in 1938.

Some forage crops in the dairy sections are being stored as grass silage because this method of storage eliminates the loss in quality which often occurs to sun-cured hay, especially first cutting alfalfa. This practice may become of increasing importance in the hay situation during the next few years, if a large number of farmers should find it satisfactory.

Quality better this year

Reports indicate that the quality of the hay crop throughout the country is about a full grade higher than last year. Prairie hay, which a year ago was of low quality because it contained a high percentage of weeds, is of higher quality this year and of lower weed content. Pure timothy and pure clover hay appear to be relatively scarce, but mixed timothy and clover hay is plentiful and of rather good quality.

Livestock Numbers and Feed Requirements

The total number of all livestock on farms January 1, 1939, in terms of grain consuming animal units, will probably be about 4 percent larger than the number on farms at the beginning of the present year. Present indications are for a substantial increase in poultry and hogs, a slight increase in cattle and sheep, and possibly some further slight decline in horse and mule numbers. This increase in livestock numbers over the previous year will be relatively greater than the increase in available feed supplies. But the total number of animal units will still be somewhat less than the average of the pre-drought period 1928-32, when feed supplies were slightly below those of the current season. Inasmuch as feed supplies will again be above average in relation to livestock numbers, feeding of all livestock will continue heavy during 1938-39. Hogs in the 1938-39 marketing year will be marketed at heavier than average weights, dairy cattle and poultry will be fed liberally, and the number of beef cattle fattened on grains and other concentrates is expected to be larger than in the previous year.

The relationship between feed prices and livestock prices will again be favorable for feeding during the 1938-39 marketing year. This favorable ratio between prices of practically all classes of livestock and livestock products and feed prices is expected to cause prices of stocker and feeder classes of livestock to continue high in relation to prices of fattened livestock. A further expansion in cattle and hog production is also in prospect for 1939, and may continue longer if feed crop production and grazing conditions next year are average or better.

The number of livestock, including poultry, on farms January 1, 1938, in terms of grain consuming animal units, was not greatly different from that of the previous 3 years, but was about 13 percent smaller than the January 1 average of 1930-34. The decrease from the 5-year average represented principally reductions in hog numbers and in horses and mules. Cattle numbers increased sharply from 1930 to 1934, and at the beginning of 1934 were the largest on record. A large part of this increase in cattle was liquidated in 1934 because of the drought in that year. Further reductions on a much smaller scale occurred in the 3 years 1935-37. As a result of reduced slaughter in 1938, particularly in calves, a slight increase in cattle numbers over a year earlier probably will be shown at the beginning of 1939.

Following the sharp reduction in hog production in 1934 and early 1935, efforts to expand production were checked by the drought of 1936. The large

feed crops of 1937, however, caused hog producers to expand their operations. The spring pig crop of 1938 was 13 percent larger than that of the previous year, while the fall pig crop, on the basis of producers' intentions reports in June, will probably show an increase of 10 percent. The total pig crop of 1938 probably will be around 7 million head larger than that of last year.

Poultry production also expanded in 1938, and poultry numbers at the beginning of 1939 are expected to be around 10 percent larger than a year earlier. Horses and mules are the only classes of livestock for which a decrease is in prospect at the end of 1938.

Feed Grain Prices

The yearly average of feed grain prices during 1938-39 may be somewhat below the 1937-38 level. In view of the higher loan rate on corn this year and the expected improvement in the general demand situation, however, some improvement over the present low level of feed grain prices is in prospect.

Following the harvesting of the 1937 crops, feed supplies have been large in relation to livestock numbers. This, together with the general recession in business activity, has resulted in the decline of feed grain prices to the lowest level since 1933. Feeding ratios have been unusually favorable to livestock producers during the past year, and are expected to remain so for at least the next 6 or 8 months. If yields are average or above in 1939, feeding ratios are expected to remain favorable during the 1939-40 marketing year. As livestock numbers increase, however, these ratios will probably decline from the present high level.

As a result of a relatively small corn crop in 1936, corn prices were high in relation to prices of oats and barley during 1936-37. With the harvesting of the large 1937 corn crop, however, corn prices declined sharply, and during most of the 1937-38 marketing year they were relatively lower than oats and barley prices as compared with the 1927-36 average. In recent months oats and barley prices declined more than corn prices. With corn prices supported by the loan, they may be relatively high as compared with prices of these other feed grains this coming winter and spring. This may cause some shift from the feeding of corn to the feeding of other feed grains, and may result in a relatively greater disappearance of oats and barley than of corn during the 1938-39 marketing year.

Corn prices; loan important factor

With the indicated 1938-39 corn supplies above average and with livestock numbers below average, corn prices have declined during recent months, and the average price of No. 3 Yellow corn at Chicago for September was 52.7 cents per bushel, or the lowest monthly average since May 1934. The influence of the Agricultural Adjustment Administration, chiefly through the loan policy, is expected to be more important in the corn situation in 1938-39 than it has been in any of the past 4 years.

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Corn: Weighted average price per bushel of No. 3 Yellow,
Chicago, 1933-38

Year begin- ning Oct.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
1933	40.2	44.4	46.5	49.7	48.6	48.9	47.3	51.3	58.4	64.1	76.1	80.0
1934	77.9	83.4	93.3	90.8	97.7	83.3	89.0	87.6	85.1	84.8	80.6	83.2
1935	82.0	62.1	59.0	60.8	61.3	60.9	63.2	63.2	64.0	85.8	113.5	112.1
1936	106.6	104.7	107.2	112.2	111.2	116.0	135.0	134.9	122.4	118.4	104.5	105.9
1937	66.1	53.4	56.1	59.3	56.9	57.9	58.6	57.7	57.0	58.7	53.6	52.7

The Commodity Credit Corporation is now offering a loan of 57 cents per bushel on old corn carried over from the 1937 crop - including that already under seal - in the commercial corn producing area to producers who cooperated with the 1937 and 1938 Agricultural Conservation Programs. Although this loan rate is considerably higher than the cash price being received by producers over much of this area, the volume of corn that will be sealed under this new loan is expected to be small. In early October it was estimated that only about 30 or 35 million bushels of 1937 corn would be sealed under the 57-cent loan. This compares with the total of about 48 million bushels which was the peak quantity of corn under seal (50-cent loan) earlier in the 1937-38 season.

No definite announcement has yet been made relative to the loan rates and regulations that will apply on 1938 corn. The provisions of the Act, together with the October 1 estimate of corn production, suggest that the loan rate will not be less than 70 percent of parity. The parity price of corn on September 15 was 81.5 cents per bushel. The maximum loan rate will be available on corn having a moisture content of $15\frac{1}{2}$ percent or less. Although no provisions have yet been made for corn testing above $15\frac{1}{2}$ percent in moisture content, it is probable that the loan rate on this lower grade of corn will be scaled down, according to moisture content, in somewhat the same manner as it was in 1937.

The wide spread between the loan rate and present corn prices is expected to induce a larger proportion of eligible producers to take advantage of the loan than last year. It has been estimated that about one-half of the farmers in the commercial producing area are eligible. It now appears probable that these regulations will be such as to allow eligible producers to seal their crop this year and, if they desire, to purchase corn for feed requirements. This would improve the demand for unsealed corn and other feed grains and would tend to advance corn prices.

In other years when the loan program was in effect it has been necessary for the price of corn to average somewhat below the loan rate before large numbers of farmers would take advantage of the loan. In the late fall of 1933, when corn loans were made available to all farmers who agreed to participate in the 1934 corn-hog program, the price of corn was around 10 to 15 cents per bushel below the loan rate in most of the Corn Belt States. Apparently largely as a result of the loan, corn prices advanced from October to January, but during

the early months of 1934 the price of corn in Iowa was still about 8 cents below the loan rate, in Nebraska about 11 cents below, and in Illinois about 3 cents below. In that year 271 million bushels of corn were placed under the loan.

In 1937-38, when the loan was available only to producers who had cooperated with the Agricultural Conservation program, the cash price of corn in these three States during the winter months was about the same as or slightly above the loan rate, and a total of only about 48 million bushels was sealed.

It is estimated that around one-half of the corn producers in the commercial corn producing area this year have not exceeded their corn acreage allotment and are, therefore, eligible for the loan. Not all the eligible farmers, however, can be expected to place their corn under seal, since many farmers may prefer to feed their corn in view of the relatively favorable livestock prices and the inconvenience of buying other corn and securing a Government loan on their corn. As compared with 1933 the situation differs in several respects. In that year all farmers who agreed to take part in the 1934 corn hog program were eligible for the loan, and most farmers were badly in need of cash. This year the spread between the loan and the cash corn price is much greater, which may offset other factors and cause a volume of corn approximating the large quantity in 1933 to be sealed.

Corn: Average price per bushel received by farmers in specified States, compared with the loan rate
(Total quantity of corn sealed in 1933-34 - 271 million bushels; in 1937-38 - 48 million bushels)

	1933-34					1937-38					1938-39				
Month:	Loan : Farm price					Loan : Farm price					Loan : Farm price				
	:rate	:Iowa	:Ill.	:Nebr.:	:rate/	:Iowa	:Ill.	:Nebr.:	:rate		:Iowa	:Ill.	:Nebr.		
	:Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents		Cents	Cents	Cents		
July :		47	53	45		117	120	120	<u>1/</u>	50	46	50	48		
Aug. :		37	43	36		97	100	99	<u>1/</u>	50	39	44	43		
Sept.:		36	41	33		86	96	94	<u>2/</u>	57	41	44	44		
Oct. :		24	31	25		46	50	59	<u>2/</u>	57					
Nov. :	45	32	37	31	50	41	42	53							
Dec. :	45	35	39	33	50	43	45	51	<u>3/</u>	57					
Jan. :	45	37	41	34	50	47	49	53	<u>3/</u>	57					
Feb. :	45	36	42	34	50	45	47	53	<u>3/</u>	57					
Mar. :	45	37	42	34	50	43	46	52	<u>3/</u>	57					
Apr. :	45	36	42	33	50	44	48	52	<u>3/</u>	57					

1/ Rate on corn testing $15\frac{1}{2}$ percent or less in moisture content; the range was 44 to 50 cents, depending on grade.

2/ Rate on corn testing $15\frac{1}{2}$ percent moisture content or less; the range is 50 to 57 cents.

3/ Minimum rate expected on corn testing $15\frac{1}{2}$ percent or less in moisture content.

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If the corn loan raises the level of corn prices, and indirectly the prices of all feed grains, its effect will be reflected to some extent in the livestock situation, and also in the feed situation during the fall of 1939. The present favorable relationship between livestock prices and feed prices is almost certain to be reflected in increased livestock production. The increases would be evident first in better finishing of livestock and in more liberal feeding of dairy cows and poultry, and next in increased production of hogs and poultry. Such increases would involve a greater utilization of feed grains. Higher corn prices made possible by the loan, however, may tend to restrict livestock feeding to some extent, and therefore may result in a somewhat larger carry-over than otherwise might be expected at the end of the marketing year.

Oats prices reach low level

Although the 1938 oats crop was considerably smaller than that of 1937, the carry-over was much larger, and oats prices have declined materially since the beginning of the harvesting season. The average price of No. 3 White oats at Chicago was 27 cents per bushel during September, which was the lowest September price since 1932. An improvement in the general demand situation during the coming year may be reflected in advancing oats prices. The price is lowest in some of the western Corn Belt States, where this year's supply of oats is large in relation to livestock numbers.

Oats: Weighted average price per bushel of
No. 3 White, Chicago, 1933-38

Year :	:	:	:	:	:	:	:	:	:	:	:	:	:
beginning: July :	Aug.:	Sept.:	Oct.:	Nov.:	Dec.:	Jan.:	Feb.:	Mar.:	Apr.:	May :	June		
July :	:	:	:	:	:	:	:	:	:	:	:	:	:
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
1933	: 39.2	35.5	35.0	32.0	33.6	34.6	36.7	36.0	33.3	31.8	34.7	43.4	
1934	: 44.8	48.9	55.4	52.5	54.1	55.7	56.3	54.1	49.0	49.5	43.6	39.2	
1935	: 36.1	29.2	29.7	29.8	29.0	29.3	30.0	30.3	27.3	27.6	26.6	28.4	
1936	: 37.2	44.3	43.6	42.1	46.0	50.4	53.6	51.5	51.2	54.4	52.2	48.0	
1937	: 39.3	30.3	32.2	31.8	31.8	32.4	33.5	32.8	32.2	31.2	29.3	28.4	
1938	: 25.6	24.0	26.6										

Barley prices

Barley prices were relatively higher than corn and oats prices during the 1937-38 marketing year, since the barley crop was relatively small as compared with the other feed grain crops. This year, however, the barley crop was nearer the pre-drought average, and barley prices declined sharply with the harvesting of the crop. The average price of No. 3 barley at Minneapolis was 78 cents per bushel in February, 66 cents per bushel in May, and 51 cents per bushel in September. Barley prices have increased since the low weekly average reached in late July. The demand for malting barley has not been quite so favorable during 1937-38 as it was in 1936-37. The trend in barley prices during the next year or two will be dependent upon the demand from brewers as well as upon the demand from livestock feeders, since ordinarily around one-fourth of the crop is used by these brewers.

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Barley: Weighted average price per bushel, No. 3 at Minneapolis, 1933-38

Year beginning July	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
1933	60.9	55.9	65.5	62.2	58.6	64.2	65.1	65.9	66.3	67.0	66.0	81.6
1934	72.0	92.8	101.9	97.0	101.0	105.1	103.8	103.0	95.1	93.4	81.2	66.7
1935	54.0	48.1	53.1	52.1	50.2	51.9	59.7	61.9	57.8	57.9	54.5	58.7
1936	85.2	114.5	124.1	122.4	116.5	120.9	124.7	124.2	110.4	114.6	103.0	76.7
1937	70.7	61.1	67.8	69.3	68.5	71.5	76.9	78.4	72.2	69.4	66.2	54.2
1938	45.7	46.1	51.1									

Feedstuffs prices

The index of wholesale feedstuffs prices for September this year was 93 percent of the 1935-36 level. This was the lowest level for that month since 1933, and compares with 109 percent last year. The price of 41 percent cottonseed meal at Memphis for the week ended October 4 was \$21 per ton compared with \$21.50 a year earlier. Linseed meal at Minneapolis was \$37.50 a ton for the week ended October 4 compared with \$32.50 last year. The price of soybean meal at Chicago on that date was \$4 per ton higher than a year earlier. Wheat and corn byproduct feeds were much lower than a year ago, with bran selling for \$11.25 per ton in Kansas City compared with \$17 last year; shorts at Kansas City was selling for \$17.75 per ton compared with \$21.75 last year. Hominy feed at Chicago was \$18.20 per ton for the first week in October as compared with \$26 per ton a year earlier. Gluten feed sold about \$3 per ton lower than a year earlier at Chicago and \$9 per ton lower at Buffalo.

Prices of high protein feed at the end of September were relatively higher than feed grain prices when compared with the relationship between the average of these prices during the 6-year period 1924-29. The accompanying table shows relative supplies of feed grains and high protein feeds and relative prices of these feeds in recent years.

Although supplies of high protein feeds are smaller than a year ago, supplies of competing products are large, and the average price of high protein feed in 1938-39 may be about the same as or slightly lower than in 1937-38. While prices of grain byproduct feeds may not average above those of last year, they are expected to improve somewhat from the low September level.

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Year	Feed	Soyseed	Soyseed	No. 3	41% pro-	43% pro-	Prices of cotton-	
	grain	cake	cake	and: yellow	tein cot-	tein cot-	tonseed meal at	
	supply	and	meals as	corn,	tonseed	tonseed	indicated market	
	Oct. 1	meal	a percent	Chicago,	meal,	meal,	over corn at	
	1/	supplies	of feed	Jan.	Memphis	Fort	Chicago	
		used	grains	price	Jan. price	Worth Jan.	Memphis	Ft. Worth
	Million	Thousand		Dollars	Dollars	Dollars		
	tons	tons	Percent	per ton	per ton	per ton	Percent	Percent
1926-27	98.9	2,503	2.53	26.50	30.10	27.40	13.6	3.4
1927-28	100.1	2,249	2.25	31.75	44.40	43.40	39.8	36.7
1928-29	102.9	2,493	2.42	33.25	44.90	43.80	35.0	31.7
1929-30	95.8	2,529	2.64	30.25	35.40	39.90	17.0	31.9
1930-31	85.0	2,468	2.90	23.25	25.80	27.20	11.0	17.0
1931-32	97.9	2,100	2.15	13.25	13.80	14.00	4.2	5.7
1932-33	113.8	2,095	1.84	8.50	11.80	11.80	38.8	38.8
1933-34	91.7	1,775	1.94	17.75	22.50	22.90	26.8	29.0
1934-35	59.5	2,262	3.80	32.50	34.60	41.20	6.5	26.8
1935-36	90.1	2,639	2.93	21.75	21.20	24.80	-2.6	14.0
1936-37	62.7	2,985	4.76	40.00	34.70	38.80	-15.3	-3.1
1937-38	97.2	3,640	3.73	21.25	23.20	25.20	9.2	18.6
1938-39	99.2	3,150	2/ 3.18	2/ 16.50	2/ 21.00	2/ 26.00	27.3	57.6

1/ Includes farm stocks of corn, oats, barley, and grain sorghums on October 1, plus production of corn and grain sorghums in each of these years. 2/ Oct. 11 price.

Hay prices

The United States average farm price of hay declined with the harvesting of the large 1938 crop. On September 15 the average farm price of hay was \$6.70 per ton compared with \$8.91 for the same month last year, and was the lowest price since June 1933. The United States average price received by farmers for alfalfa dropped from \$10.39 per ton for September 1937 to \$7.73 for September 1938. Somewhat similar declines also were reported for clover and timothy and for prairie hay. Prices in early October were about the same as in September. Changes in hay prices from the present level during the marketing year will depend somewhat on the severity of the winter and the condition of the winter and spring pasture. The general level of hay prices for 1938-39 is expected to be comparatively low, in view of the large supplies of hay now available per hay consuming animal unit.

The Foreign Feed Grain and Livestock Situation

Exports of feed grains from the United States in 1938-39 are expected to be somewhat less than in 1937-38 because of a less active demand from European importing countries and much stronger competition from other exporting countries. Exports of corn, however, are expected to hold up well until next spring, when the Argentine crop will come onto the market.

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Increased feed grain production in European importing countries.

Production of feed grains in European importing countries this year is now expected to be about 4 percent larger than in 1937, and around 2 percent above the 1931-35 average. Furthermore, supplies of rye available for feeding this year are expected to be much larger than last, not only because of the large rye crop, but also because of the near record wheat crop, which will permit a larger proportion of rye to be used as animal feed.

Conditions were unusually favorable for the production of feed grains in practically all sections of Europe, and total supplies of feed grains are expected to be somewhat above the average for recent years.

The production of root crops in Europe, while above average, is expected to be smaller than in 1937, and this decrease will offset to some extent the larger supplies of feed grains.

Feed production: European importing countries,
average 1931-35 and yearly 1936-38

Item	1931-35 average	1936	1937	1938
	1,000	1,000	1,000	1,000
	short tons	short tons	short tons	short tons
Corn	5,377	5,947	6,622	6,173
Oats	26,215	24,694	25,763	26,235
Barley	14,516	13,412	14,426	14,550
Rye	23,450	21,846	21,221	23,810
Total	69,558	65,899	68,032	70,768
Potatoes	146,210	152,990	175,714	165,345

Reduced feed requirements in importing countries

In addition to the increase in production of feeds in Europe this year, the necessity for imports is expected to be less urgent, because of reduced livestock numbers. Hog numbers in Europe about the middle of 1938 were approximately 3 percent smaller than a year earlier. Cattle numbers in January 1938 showed little change from the previous year, but since then there has been an important liquidation of cattle because of a severe outbreak of foot-and-mouth disease.

The reduction in livestock numbers, however, probably will not be fully reflected in the demand for United States feed grains, because much of the decrease has occurred in Germany, and that country obtains most of its feed supplies from countries other than the United States.

Larger supplies in other exporting countries

Feed grain production in 1938 in the exporting countries, Canada, Argentina, and the Danube Basin, is expected to exceed that of last year by approximately 20 percent, and to be about 5 percent above the 1931-35 average. Production in Canada and the Danube Basin is only about 6 percent larger than last year, but production in Argentina is expected to be nearly double that of a year ago, when that country harvested a very poor corn crop.

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Since the Argentine crop will not be ready for market until next March or April, however, and since the Danubian corn crop is somewhat smaller than a year ago, it is expected that exports of corn from the United States will continue in substantial volume for the next several months. But exports are not likely to approach the volume reached during the past season, when they totaled over 140 million bushels.

Feed production: Major exporting countries, excluding the United States and Soviet Russia, average 1931-35 and yearly 1936-38

Item	: 1931-35 : : average :	1936 : :	1937 : :	1938 : :
	: 1,000	1,000	1,000	1,000
	: short tons	short tons	short tons	short tons
	:			
Corn	22,844	25,956	20,270	23,217
Oats	8,347	7,232	6,625	8,995
Barley	5,312	5,765	4,972	5,980
Total	36,503	38,953	31,867	38,192

The Feed Grain Situation by Regions

Total supplies of feed crops in the country as a whole are unusually large. Allowing for the reduction in livestock in the Great Plains caused by droughts in recent years, supplies of feed grains and hay appear adequate for present numbers of livestock in practically all sections except in areas centered in South Dakota and surrounding States, and in northern Texas, eastern New Mexico, western Kansas, and southern Oklahoma. On October 1 both pastures and ranges were generally above average in condition. In some areas, pastures in 1938 have shown substantial recovery from the accumulated effects of the series of drought years.

Great Plains and Western Corn Belt

The Great Plains region, which was most seriously affected by drought condition in 3 of the past 4 years, again experienced conditions unfavorable to the production of feed crops in 1938. The drought this year was most severe in the Dakotas, the "dust bowl" area, northwestern Kansas, and central Nebraska. Outside of the "dust bowl" the drought started in August, and late crops were most extensively damaged. The production of corn in this area this year, although somewhat larger than last year, will be only approximately half of the 1927-36 average. Corn, however, was the only grain affected by the drought; the production of small grains and grain sorghums was above the 1927-36 average. Hay and pasture were both below normal. In many sections of the area, however, an abundance of late pasture will be available from wheat, especially volunteer stands. The production of grain sorghums in this area was somewhat above average in 1938.

Though the supplies of feed will be short in comparison with pre-drought years, they should be adequate for feeding the livestock in the area. Recovery from the liquidation of livestock in other recent drought years has not progressed very far. Kansas is the only State in which the quantity of feed

grains produced in relation to the number of grain-consuming animal units is smaller than the average of the 5 years 1928-32.

The current shortage of feed grains in the Western Corn Belt will continue to restrict cattle feeding in this area, which normally is an important source of supply of grain-fed cattle for slaughter, but which produced relatively few such cattle in the past 2 years.

Central and Eastern Corn Belt

The supply of feed grains in the Central and Eastern Corn Belt this year will be about 25 percent larger than the 1928-32 average, notwithstanding an approximately 25 percent decrease in the production of oats as compared with 1928-32. Hay supplies in this area are indicated to be larger than average, and supplies of other forage are abundant. Except in southern Missouri and west central Minnesota, fall pastures have been good.

Because of the unusually large carry-over of corn in farm stocks and because of the continued abnormally small numbers of hogs in central Corn Belt States, farmers have abundant supplies of feed. There will be an accumulated surplus of corn, particularly in Illinois, Iowa, and Minnesota. Present indications are that a considerable quantity of corn will be placed under loan.

Livestock-feed price ratios are expected to be favorable to livestock production in the Corn Belt, at least until the approach of the 1939 harvesting season. This should result in a continuation of the increase which has been recently under way in numbers of pigs farrowed and in liberal feeding of both beef and dairy cattle.

Southern States

Supplies of feed grains and hay in the Southern States are even larger than in any recent year. On the other hand, the production of cottonseed cake and meal probably will be approximately a third below that of a year ago because of the reduction in the size of the 1938 cotton crop as compared with 1937. Except in a small area centering in South Carolina and Georgia, pastures have been very good throughout the Southern States this year.

North Atlantic States

Homegrown supplies of feeds which are mostly roughages are slightly larger than last year, when they were abundant. With large supplies of feed grains available for shipment from the Corn Belt at fairly low prices, dairy-men and poultrymen are expected to continue the heavy rations reported in recent months.

Western States

Range and pasture conditions have been good this year from the Rocky Mountains westward except on the Northern Pacific Coast, where extremely dry weather has prevailed and pasture conditions are very poor. The supply of hay in the Western States is about the same as the near-average supply last year. Indications are that the supply of barley and oats will be less than the average for the 10 years 1927-36. The production of oats in Oregon was down about one-third because of drought.

All Corn: Production in the United States by geographical divisions, 1928-32 average, yearly 1933-38

Year	North Atlantic	East North Central	West North Central	Total North Central	South Atlantic	South Central	Western	Total United States
	: 1,000 bu.	: 1,000 bu.	: 1,000 bu.	: 1,000 bu.	: 1,000 bu.	: 1,000 bu.	: 1,000 bu.	: 1,000 bu.
1928-32 av.	79,924	731,060	1,175,985	1,907,045	161,002	370,605	36,197	2,554,772
1933	87,600	622,159	1,120,961	1,743,120	179,993	354,547	34,372	2,399,632
1934	90,097	495,498	397,879	894,377	168,125	296,513	12,011	1,461,123
1935	103,104	785,602	814,172	1,597,774	199,536	378,702	24,631	2,303,747
1936	89,711	536,696	367,668	904,364	170,230	320,547	22,237	1,507,089
1937	103,264	951,201	963,551	1,914,752	201,234	402,787	22,958	2,644,995
1938	101,698	824,377	893,314	1,717,691	199,990	413,351	26,586	2,459,316

OATS								
1928-32 av.	61,297	405,592	607,532	1,013,124	24,882	74,924	40,874	1,215,102
1933	46,574	230,373	346,348	576,721	22,092	46,337	41,442	733,166
1934	55,310	184,645	178,483	363,128	22,791	67,726	31,851	542,306
1935	60,516	329,149	649,101	978,250	27,441	32,918	45,777	1,194,902
1936	50,885	270,346	350,377	620,723	22,664	52,214	39,020	785,506
1937	51,194	357,324	599,880	957,204	28,064	69,876	39,920	1,146,258
1938	55,259	303,622	526,533	830,155	30,280	74,548	41,335	1,041,577

BARLEY: Production in important producing States								
Year	Wis.	Minn.	Iowa	N. D.	S. D.	Neb.	Calif.	Total U. S.
1928-32 av.	22,178	49,615	17,882	39,055	35,277	15,386	29,594	281,237
1933	17,710	28,070	9,280	17,902	3,451	8,390	26,174	153,767
1934	18,534	21,815	4,901	7,810	1,685	1,818	26,078	116,680
1935	25,548	59,798	15,264	42,840	41,964	15,180	36,983	285,774
1936	17,896	31,620	5,984	4,522	8,977	5,860	29,925	147,475
1937	22,022	51,536	11,840	21,120	20,068	10,642	28,350	219,635
1938	24,672	48,504	11,083	23,154	31,042	21,972	27,050	252,578

Feed Crops and Livestock Outlook

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Supplies of feed grains and hay, numbers of grain consuming and hay consuming animal units on farms, and supplies of feed grains and hay per animal unit, 1920-39

	: Farm	: Grain	: Supply of:			: Hay	: Supply of:
Year	: supply of:	: consuming:	: feed grains	Year	: Supply	: consuming:	: hay per
beginning:	: feed	: animal	: per grain:	beginning:	: of	: animal	: hay
Oct. 1	: grains	: units	: consuming:	May 1	: hay	: units	: consuming
	: Oct. 1	: on farms:	: animal		: 3/	: on farms:	: animal
	: 1/	: Jan.1 2/	: unit			: Jan.1 4/	: unit
	: 1,000				: 1,000		
	: <u>tons</u>	<u>Thousands</u>	<u>Tons</u>		: <u>tons</u>	<u>Thousands</u>	<u>Tons</u>
	:		:		:		:
1920	: 117,994	136,688	.86	1920	: 100,977	86,774	1.16
1921	: 114,038	138,732	.82	1921	: 101,182	86,078	1.18
1922	: 102,584	145,713	.70	1922	: 104,687	84,628	1.24
1923	: 105,146	143,696	.73	1923	: 100,784	82,822	1.22
1924	: 91,017	137,973	.66	1924	: 102,155	80,367	1.27
1925	: 107,162	132,985	.81	1925	: 91,557	77,864	1.18
1926	: 98,938	135,012	.73	1926	: 85,225	75,478	1.13
1927	: 100,054	140,078	.71	1927	: 106,640	74,428	1.43
1928	: 102,855	136,933	.75	1928	: 98,000	75,318	1.30
1929	: 95,798	135,824	.71	1929	: 95,948	76,822	1.25
1930	: 84,966	135,406	.63	1930	: 84,128	78,084	1.08
1931	: 97,868	140,099	.70	1931	: 82,409	79,841	1.03
1932	: 113,768	145,255	.78	1932	: 92,366	82,850	1.11
1933	: 91,720	144,096	.64	1933	: 85,846	85,872	1.00
1934	: 59,510	121,266	.49	1934	: 67,590	80,866	.84
1935	: 90,137	123,118	.73	1935	: 94,450	79,869	1.18
1936	: 62,720	122,773	.51	1936	: 84,110	78,411	1.07
1937	: 97,165	121,843	.80	1937	: 89,134	77,663	1.15
1938	: 100,580 5/	127,000	.79	1938	: 105,000 5/	78,000	1.35

1/ Includes farm stocks of corn, oats, barley, and grain sorghums on October 1, plus total production of corn and grain sorghums in each of the years considered.

2/ Number of animals on farms January 1, weighted as follows: milk cows, 1.00; other cattle, 0.51; hogs, 0.87; sheep, 0.04; horses and mules, 1.14; poultry 0.045.

3/ Total production of tame and wild hay plus carry-over on May 1.

4/ Number of animals, excluding poultry, on farms January 1, weighted as follows: milk cows, 1.00; other cattle, 0.75; sheep, 0.12; horses and mules, 1.00.

5/ Estimated.

Feed Crops and Livestock Outlook

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Corn: Farm supply in relation to the number of pigs saved,
1928-32 average, and yearly 1934-38

Section and State	Corn supply per pig saved 1/											1938
	Quantity						Expressed as a percentage					quantity
							of 1928-32 average					as per-
	1928-1934 32 av.	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	centage of 1937
	Bush.	Bush.	Bush.	Bush.	Bush.	Bush.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
United States	34	31	43	26	44	43	91	126	76	129	126	98
North Atlantic	59	81	84	64	67	67	137	142	108	114	114	100
E. North Central	40	36	52	32	55	49	90	130	80	138	122	89
W. North Central	31	23	37	16	41	39	74	119	52	132	126	95
Total												
N. Central	34	28	43	23	47	43	82	126	68	138	126	91
South Atlantic	35	39	42	34	36	34	111	120	97	103	97	94
South Central	43	36	44	33	41	38	84	102	77	95	88	93
Western	11	7	12	9	9	10	64	109	82	82	91	111
Ohio ...	33	33	48	33	41	39	100	145	100	124	118	95
Indiana	34	29	41	28	46	36	85	121	82	135	106	78
Illinois	53	40	69	42	84	71	75	130	79	158	134	85
Michigan	37	42	68	36	50	54	114	184	97	135	146	108
Wisconsin	28	38	36	18	31	34	136	129	64	111	121	110
Minnesota	26	30	46	23	43	37	115	177	88	165	142	86
Iowa ...	32	31	39	20	46	45	97	122	62	144	141	98
Missouri	27	14	22	13	38	33	52	81	48	141	122	87
N. Dakota	16	12	46	4	31	28	75	288	25	194	175	90
S. Dakota	23	13	49	9	36	26	57	213	39	157	113	72
Nebraska	37	19	38	12	33	39	51	103	32	89	105	118
Kansas	38	13	23	8	21	33	34	61	21	55	87	157

1/ Production and farm supply of corn, wheat, oats, and cottonseed meal (per pound).
Average cost of poultry ration (corn 62 pounds, wheat 14 pounds, oats 8 pounds, and cottonseed meal) per pound.
Month divided by the average price of dairy feed.
States, divided by the United States average price per dozen received for eggs by farmers.

Feed Crops and Livestock Outlook

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Ratios between the prices of feed grains and prices of livestock and livestock products, by months, 1928-32 average, annual 1933-38

Year :	:	:	:	:	:	:	:	:	:	:	:	:	:	:
begin- ning :	Oct. :	Nov. :	Dec. :	Jan. :	Feb. :	Mar. :	Apr. :	May :	June :	July :	Aug. :	Sept. :	Av.	
Oct. :	:	:	:	:	:	:	:	:	:	:	:	:	:	
Av. :	Hog-corn ratio 1/													
1928-32 :	11.7	11.4	11.4	11.4	12.4	13.1	12.0	11.6	11.4	11.1	10.8	11.1	11.6	
1933 :	11.0	9.1	7.0	6.9	9.0	8.8	8.1	6.8	7.0	7.0	7.7	8.5	8.1	
1934 :	7.2	6.8	6.3	8.5	9.5	10.9	10.0	10.6	10.9	11.2	13.4	13.2	9.9	
1935 :	12.0	15.0	16.2	16.2	16.9	16.8	16.6	15.2	15.4	11.4	8.9	8.8	14.1	
1936 :	9.0	9.1	9.3	9.1	9.1	8.7	7.4	8.0	9.0	9.8	11.3	10.7	9.2	
1937 :	15.2	16.2	14.1	13.3	14.6	15.8	14.1	14.2	14.9	14.7	14.5	15.8	14.8	
Year :	:	:	:	:	:	:	:	:	:	:	:	:	:	
begin- ning :	Jan. :	Feb. :	Mar. :	Apr. :	May :	June :	July :	Aug. :	Sept. :	Oct. :	Nov. :	Dec. :	Av.	
Jan. :	:	:	:	:	:	:	:	:	:	:	:	:	:	
Av. :	Beef-corn ratio 2/													
1928-32 :	15.2	14.7	15.0	15.0	14.9	15.5	15.7	16.4	17.5	18.5	18.3	17.5	15.9	
1933 :	21.0	20.8	19.6	14.4	13.4	13.3	10.8	11.5	12.1	13.8	11.6	11.1	13.6	
1934 :	10.8	11.3	12.1	13.6	13.5	12.6	11.2	9.6	10.1	9.6	8.7	7.9	10.4	
1935 :	10.2	12.0	12.9	12.5	12.7	12.1	11.6	12.7	12.5	12.7	16.1	16.6	12.6	
1936 :	15.3	13.7	14.2	13.3	12.5	12.3	9.5	7.5	8.2	8.6	9.8	9.6	10.6	
1937 :	9.5	9.2	9.3	8.0	8.3	9.9	11.8	13.5	13.0	19.3	19.9	16.0	12.6	
1938 :	13.7	13.7	14.6	14.7	15.3	16.7	18.2	19.2	19.8					
Av. :	Butterfat-feed ratio 3/													
1928-32 :	31.1	29.1	29.3	28.1	26.4	25.4	26.2	29.7	32.4	37.6	38.0	38.8	30.3	
1933 :	51.1	42.7	38.7	32.4	29.7	28.1	21.7	20.2	22.3	26.4	24.9	21.7	27.2	
1934 :	18.5	23.7	25.5	23.1	23.1	20.6	19.6	18.1	16.3	16.5	18.5	17.6	19.5	
1935 :	18.9	22.4	19.9	21.3	18.0	16.8	17.6	19.4	21.7	23.3	31.5	36.3	21.5	
1936 :	36.4	36.7	33.0	32.8	27.9	28.6	24.9	21.4	21.0	20.7	20.7	20.2	25.6	
1937 :	19.5	18.7	19.3	16.8	16.0	16.7	17.5	21.8	24.7	35.1	40.7	42.7	21.9	
1938 :	35.3	32.1	31.7	28.7	26.9	26.6	27.5	30.5	30.1					
Av. :	Feed-egg ratio 4/													
1928-32 :	4.63	6.00	6.94	7.32	7.55	7.31	6.75	6.03	5.05	4.12	3.33	3.32	6.21	
1933 :	2.21	4.36	5.03	6.31	7.08	8.54	8.90	7.92	6.14	4.23	3.82	4.25	6.16	
1934 :	5.32	6.22	7.00	7.52	7.68	8.61	8.46	8.12	6.84	6.30	5.18	5.91	7.15	
1935 :	6.45	6.29	8.38	8.02	7.38	7.13	6.62	6.19	5.25	4.80	3.81	3.89	6.64	
1936 :	4.97	4.86	6.66	6.89	6.50	6.24	7.49	8.21	7.60	6.47	5.41	5.95	6.52	
1937 :	8.32	9.77	9.86	10.65	11.93	11.56	10.39	8.59	7.08	4.85	3.86	4.19	9.31	
1938 :	5.31	6.96	6.87	6.94	6.17	5.82	5.30	4.53						

1/ Number of bushels of corn required to buy 100 pounds of live hogs based upon the average monthly price of hogs and of No. 3 Yellow corn, both at Chicago. Figures on hog prices prior to 1920 are general average hog prices as published in the Chicago Drovers' Journal Yearbook; subsequent figures were compiled from reports of packer and shipper purchases, excluding pigs, sows, boars, extremely rough sows, or cripples.

2/ Monthly average price of "Beef steers from the Corn Belt, sold out of first hands, at Chicago for slaughter, all grades", per 100 pounds, divided by monthly average price of No. 3 Yellow corn per bushel at Chicago.

3/ Average price per pound for butterfat received by producers on the 15th of each month, divided by average price of feed (mixture of corn, oats, barley,

THE DAIRY OUTLOOK FOR 1939

Summary

The decline in milk-cow numbers which started in 1934 has been checked, and an increase in numbers is in prospect. The number of heifers on hand, and the number of heifer calves being saved are more than enough to provide for normal replacements in 1939 and 1940. Feed supplies are abundant and prices of milk cows are high compared with the general level of prices of agricultural products. This has stimulated the saving of heifer calves and tended to reduce culling. In 1938 the number of cows eliminated from herds was relatively high but decidedly less than in 1936 and 1937. It seems probable that culling will decline still further. It appears that farmers are preparing to increase rapidly the number of milk cows and other cattle. All of the principal regions will probably participate in the expansion in dairy cattle. An increase in cattle numbers will tend to reduce cattle prices.

Feed and hay supplies per animal unit for the 1938-39 feeding period are decidedly above average.

Prices of dairy products are relatively high compared with feeds, and are likely to continue so during the winter of 1938-39. Milk cows will probably be fed liberally.

Milk production during the summer and fall of 1938 was above the preceding peaks for those seasons of the year. Even on a per-capita basis, milk production was the highest in the 14 years of record. Production during the coming winter is expected to be at a new peak, and, on a per-capita basis, to continue above average.

Fluid milk and cream consumption has declined since reaching a recovery peak in 1937. Consumption during the coming winter may be about the same as a year earlier, even though milk production is higher.

Production of manufactured dairy products during the first 8 months of 1938 was decidedly larger than in 1937. Consumption of these products, however, has shown relatively little change, and stocks have increased to record levels.

During the first half of 1938 prices of dairy products declined sharply, with the rise in dairy production and the increasing seriousness of the depression. During the summer of 1938 the price of butter was stabilized by the purchase of over 113 million pounds by the Dairy Products Marketing Association. This butter is available for resale in the open market, if prices rise enough to cover costs, and for sale to the Government for relief distribution. Until this butter is disposed of either for relief or in commercial channels there will be a ceiling on the market during the winter season at a level representing a moderate seasonal price increase.

In the last 12 to 15 years, the annual production of milk per capita has been relatively stable. With the longer time outlook for increased numbers of milk cows, there will probably be more than enough to supply the average production of milk per capita. Any marked improvement in the general level of prices of dairy products will depend on further recovery in business and a rise in the general level of prices.

Decline in Milk Cow Numbers Checked, Outlook for Increased Numbers

The number of milk cows (cows and heifers 2 years old and over kept for milk on farms) on the first of January 1938 was estimated to be 24,902,000 head or 7.5 percent less than the excessively high number at the beginning of 1934. The number at the first of 1938 was equal to 19.2 milk cows per 100 of population. While the number per capita was lower than in other years, except from 1927 to 1930, it would appear to be about normal under present conditions if allowance is made for the general downward trend in numbers per capita that has about offset the upward trend in productivity per cow.

The number of cows on June 1, 1938 was about the same as a year earlier. The rather general declines in the Great Plains north of Texas and small decreases in other areas about offset increases in the important dairy section extending through the Northern States from Minnesota to New England.

The number of yearling heifers on farms being kept for milk cows January 1, 1938 was estimated at 4,923,000 head. These heifers were saved from the 1936 calf crop, and most of them came into production in 1938. Judging chiefly from the number of cows and heifers slaughtered under Federal inspection the rate of culling of milk cows in 1938, while lower than in the previous 2 or 3 years, was fairly heavy. The total number of cows eliminated from herds in 1938 will probably be nearly equal to the number of heifers added to herds, and the increase in the number of milk cows in 1938 will probably be less than 1 percent.

NUMBER OF HEIFERS MORE THAN ENOUGH TO PROVIDE
FOR NORMAL REPLACEMENTS TO MILKING HERDS IN
1939

The number of heifers (1 to 2 years old) on hand January 1, 1939 will probably be about 5,100,000 head. This would be 20.3 heifers per 100 cows, and compares with the 15-year average, 1920-34, of 19.5. In the period 1920-34 the annual culling from herds, including death losses, averaged 18.1 cows per 100 head on hand at the beginning of the year. In this period the increase in numbers averaged 1.4 percent per year. It is expected that culling in 1939 will be about average. Thus, the number of heifers (1 - 2 years old being kept for milk cows) on farms January 1, 1939 would permit about a 2 percent increase in milk cows in 1939. But if culling is as heavy as during the last 3 years no increase in milk cow numbers will occur, while culling as low as the minimum from 1931 to 1933 would result in an increase of 4 percent.

Dairy Outlook

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Large Number of Heifer Calves Saved in 1938

The number of calves slaughtered has declined sharply in the past year. A survey of last June showed more "spring born heifer calves being saved for milk cows" in relation to the number of cows than in any year since 1931. This tendency to save more of the heifer calves than usual appears to be shared by nearly all States except those on the Pacific Coast. Judging from the average losses and liquidation in seasons free from extensive drought, the June reports suggest that the number of heifers added to milking herds in 1940 may be around 5,400,000 head, equal to about 21 percent of the expected number of cows at that time. This would be about as high as ever reported and decidedly more than necessary to provide normal replacements.

Evidently farmers are preparing to increase rapidly the number of milk cows and other cattle. If this increase takes place it will tend to reduce the price of milk cows.

Feed Supplies Per Animal Unit Large

Although the planted acreage of feed grains in 1938 was unusually small, yields per acre were high and total production was about average. The carry-over from the 1937 crop was large. Livestock numbers are relatively low. Feed-grain supplies (production plus carry-over) per animal unit for the 1938-39 feeding season (July 1, 1938-June 30, 1939) are the largest in more than 15 years.

Supplies of protein byproduct feeds are smaller than a year ago chiefly as the result of a smaller production of cottonseed cake and meal. In relation to animal units, however, the current supply is larger than in any of the 10 years prior to 1934.

Hay supplies per animal unit during the 1938-39 feeding season will be decidedly above average and the highest in more than a decade.

Butterfat Prices High in Relation to Feed Grains

During the 15-year period 1920-34, the price of butterfat averaged about 30 percent higher in relation to the price of feed grains than in the period 1910-14. Following the short harvests in 1934 and 1936, butterfat prices were low compared with feeds. By the fall of 1938, butterfat prices were higher in relation to feeds than the average for the 15 years 1920-34. Feed prices will probably continue low during the 1938-39 feeding period.

At present, butterfat prices are unusually low in relation to meat animals. This appears to be only temporary. Meats have been in relatively short supply whereas dairy production has been large.

Dairy Outlook

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Table 1.-Quantity of products equivalent in price to one pound of butterfat, selected periods, 1910-38 (based on average annual farm prices)

Year	: Feed : grains	: Byproduct: : feeds <u>1/</u>	: Hay	: Veal : calves	: Beef : cattle	: Hogs
	: Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
1910-14	: 22.1	<u>2/</u> 19.8	44.4	3.87	5.02	3.65
1915-19	: 19.4	18.7	53.5	3.78	4.85	3.35
1920-34	: 29.2	22.6	62.5	4.37	5.99	4.75
1925-29	: 30.3	23.7	74.0	4.22	5.89	4.41
1935	: 21.6	20.5	53.9	4.01	4.57	3.35
1936	: 25.6	22.3	72.9	4.28	5.41	3.54
1937	: 21.9	20.5	65.1	4.05	4.85	3.53
1938 <u>3/</u>	: 29.9	22.0	68.4	3.40	4.40	3.46
Index numbers, 1920-34 = 100						
1910-14	: 76	88	71	89	84	77
1915-19	: 66	83	86	86	81	71
1920-34	: 100	100	100	100	100	100
1925-29	: 104	105	118	97	98	93
1935	: 74	91	86	92	76	71
1936	: 88	99	117	93	90	75
1937	: 75	91	104	93	81	74
1938	: 102	97	109	78	73	73

1/ Based on wholesale prices of byproduct feeds.

2/ Average 1913-14.

3/ Average 8 months.

Milk Production High in 1938

Milk production per cow in 1937 was about the same as the 1926-35 average but 8 percent higher than the low production in 1934. In the early part of 1938, grain feeding was heavy, grass started early, and pastures were the best in 10 years. Milk production per cow rose from slightly below average on February 1 to a record peak on June 1. During the summer and fall of 1938 production per cow continued at record or near-record levels.

Total milk production during the calendar year 1938, will probably be 4 or 5 percent more than the 103 billion pounds produced in 1937. This represents a record high production nearly 3 percent above the previous peak in 1933. With allowance for the steady increase in population it would give a per capita production about as high as in the years 1931-33, which were the highest in the past decade.

Milk Production This Winter Expected to be Heavy

Milk production in the 1938-39 winter feeding season is expected to be heavier than a year earlier. For the period mid-October to mid-May total milk production will probably average about 2 or 3 percent higher than a year earlier. This would be the largest winter milk production on record, and on a per-capita basis about 3 percent above the 10-year average.

By the middle of 1939 the number of milk cows will probably be somewhat higher than a year earlier. Milk production per cow, however, will be considerably dependent on condition of pastures and other factors which cannot be foreseen.

Looking ahead to the early 1940's the prospect is for at least a temporarily increased number of cows per capita, but perhaps not for a corresponding increase in total milk production. In the past decade the increase in the per-capita consumption of dairy products has been gradual, rarely more than 2 percent in 1 year. When the number of milk cows increased too rapidly there were adjustments in feeding and management practices which reduced production per cow.

Consumption of Fluid Milk and Cream Declines After Reaching Recovery Peak in 1937

About 30 percent of the total milk produced has been consumed as fluid milk and cream in cities and villages in recent years. About 12 percent of the production is consumed on farms as milk or cream. Estimated consumption of milk and cream in cities and villages rose from 1934 to 1937, and most of the decline which occurred in the early 30's was recovered.

The receipts of milk at the three principal eastern markets, New York, Boston, and Philadelphia, rose 11 percent from 1934 to 1937. Cream receipts rose only 3 percent.

Receipts of milk and cream at these markets declined sharply during the first half of 1938. Even though business activity is improving and total milk production is high, it seems probable that the consumption of milk and cream in cities and villages during the winter of 1938-39 may not be greatly different from a year earlier. The longer time outlook is for increased consumption of milk and cream in cities and villages.

Per-capita production of commercial ice cream in 1937 was about the same as the 1924-29 average but 70 percent larger than the recent low in 1933. Trade reports indicate that production in 1938 will be less than in 1937. Further increases in ice-cream consumption are dependent on increases in the purchasing power of consumers.

Production of Principal Manufactured Products up Sharply in 1938

Total production of manufactured dairy products (excluding farm butter) in 1937 was about the same as the peak in 1936. On a per-capita basis, 1937 production was somewhat less than the preceding peak but about 2 percent above the 1924-29 average.

In 1938 total milk production was high, and there was a tendency for the consumption of fluid milk and cream to decline. Production of the principal manufactured dairy products in the first 8 months of 1938 was 9 percent larger than the high production a year earlier. There were marked increases in the production of each of the important products. Creamery butter production was up 8 percent, cheese 12 percent, and evaporated milk 11 percent. Total production of these products per capita reached a new high. Relatively high production is in prospect for the coming winter.

Consumption of Manufactured Products Shows Little Change

Even though the production of the principal manufactured dairy products in the first 8 months of 1938 was decidedly larger than a year earlier apparent consumption was about the same. Storage stocks increased rapidly to new high levels.

On an annual basis the consumption of manufactured dairy products in the United States is about the same as production. Imports and exports are relatively small. There is little or no tendency to carry over stocks from one storage season to the next. Thus, the large stocks now on hand will in large part be moved into consuming channels including relief, during the remainder of the storage season which ends about May 1.

Cheese Consumption Up

Consumption of cheese in 1937 was the highest on record. During the first 8 months of 1938 consumption was 4 percent higher than a year earlier. Cheese was the only important dairy product the consumption of which in 1938 was greater than in 1937. With large stocks and prospects for relatively high production, consumption will probably continue relatively high. The long-time trend in per-capita consumption of cheese is upward. Per-capita consumption in 1937 of 5.32 pounds compared with 4.60 pounds in the period 1924-29, and 4.28 pounds in the period 1910-14.

Evaporated Milk Consumption at New Peak in 1937 Down in 1938

Total consumption of evaporated milk in 1937 was slightly larger than the preceding peak in 1936. During the first 8 months of 1938, however, the movement of evaporated milk into distributing channels was about 6 percent less than in the same period of 1937. This decline is probably only temporary. It may reflect the depletion of stocks in the hands of distributors.

Butter Consumption in 1936 and 1937 Low, Little Change During
First 8 Months of 1938

Consumption of Olco High

During the last 3 years retail prices of oleomargarine have been low compared with butter prices, and much lower in relation to lard and vegetable shortenings than in the decade of the 1920's. This low price of oleo probably stimulated its use as a cooking fat in addition to its use instead of butter.

Year	Butter : total	Cheese : 1/	Evaporated milk : case goods	Condensed milk : case goods	Commercial milk : ice cream	Fluid milk and cream in cities and villages	All manufactured dairy products : (milk equivalent)	All dairy products : (milk equivalent)
	Lb.	Lb.	Lb.	Lb.	Gal.	Gal.	Lb.	Lb.
1910-14	17.5	4.28	4.58	2.69	0.54	3/	434	3/
1924-29	17.6	4.60	9.93	1.00	2.02	39.5	467	805
1930	17.3	4.61	11.25	.80	1.96	40.1	465	815
1931	18.1	4.47	11.50	.66	1.68	39.0	475	832
1932	18.3	4.37	12.39	.47	1.24	39.1	474	819
1933	17.9	4.49	12.38	.42	1.13	38.6	467	797
1934	18.3	4.84	13.49	.40	1.42	36.1	483	816
1935	17.3	5.24	14.64	.39	1.56	37.0	472	804
1936	16.6	5.35	14.10	.36	1.90	38.2	462	800
1937	16.7	5.32	14.58	.34	2.01	3/	464	3/

1/ Farm and factory. 2/ Production. 3/ Not available.

Prices down sharply in 1938

The major movements in the wholesale prices of dairy products have been much the same as the major movements in the general level of prices of raw materials or basic commodities. The recovery peak in prices was reached in 1937. From the peak in 1937 to the low in 1938 (through September) the Bureau of Labor index of prices of raw materials declined 22 percent. Prices of dairy products after allowing for the usual seasonal changes, declined from the recovery peak in December 1937 of 111 percent of the 1910-14 average to 89 in August 1938, a decline of 20 percent. This decline weakened the price structure in fluid milk markets. During the past summer the price of butter averaged decidedly lower than in ^{the} corresponding period of 1936 and 1937, but about the same as in 1934 and 1935. The purchases by the Dairy Products Marketing Association tended to holdup prices.

Since 1924 annual milk production has fluctuated between 806 and 855 pounds per capita. Production in the peak year was only 6 percent larger than the low. This is a much more stable level of production than for any of the other important agricultural or industrial products. Most of the fluctuations in the annual prices of dairy products have been due to factors other than the supply. With prospects for comparatively large milk production and increasing cow numbers, any marked improvement in milk and butter prices during the next few years will depend on further increases in urban prosperity and a rise in the general level of prices.

Surplus Removal and Stabilization Programs

Government purchases of butter, cheese, evaporated milk, and dry skim milk for relief distribution in recent years have tended to support the markets at times of unusually large surpluses and weak market conditions. However, the quantities involved, at least until 1938, represented small percentages of annual supplies and such purchases tended to maintain prices on a short-time basis with a minor effect on the annual average. Government purchases of butter declined from 46 million pounds in 1933-34 to less than 2 million pounds in 1936-37. In May and early June of the current storage year, the Federal Surplus Commodities Corporation purchased nearly 7 million pounds of butter. In mid-June 1938, the surplus removal program of the Corporation was replaced by the operations of the Dairy Products Marketing Association. This Association is an organization of producer cooperatives established for the purpose of buying and selling dairy products, funds for this purpose being made available in the form of loans from the Commodity Credit Corporation. The plan provided that purchases might be stored pending developments in market conditions and that as much of the butter would be available for resale to the trade later in the season as could be absorbed in commercial channels at a sufficient seasonal increase in prices to cover the purchase cost of the butter, plus all operating, handling, storage, and interest costs, the remainder to be taken over by the Government for relief distribution. The Federal Surplus Commodities Corporation has already been authorized to purchase up to 90 million pounds of butter for relief during the year ending June 30, 1939.

The butter stabilization program operated by the Dairy Products Marketing Association under which loans have been made sufficient for to buy up to 115 million pounds of butter, was an important factor in the butter situation during the summer and fall of 1938. The program established a bottom under the butter markets during the summer season, and until the butter holdings of the Dairy Products Marketing Association are disposed of either in commercial or relief channels, the program will tend to place a ceiling on the markets during the winter season at a level representing a moderate seasonal price increase.

Large purchases of 89 to 92-score butter by the DPMA maintained the wholesale price of 92-score butter at Chicago at 25.25 cents from June 15 to July 15 and at 25.5 cents during the remainder of the summer, with about the usual spreads for other grades and markets. Of the total cold-storage holdings of butter on October 1 of 210 million pounds, DPMA held 98 million pounds. Therefore, the holdings by commercial interests on that date were less than the trade holdings a year earlier of 119 million pounds and the 5-year average of 135 million pounds. By October 21 the Dairy Products Marketing Association had purchased 113 million pounds. The Federal Surplus Commodities Corporation resumed open market buying operations on October 4 and up to October 21 had taken 9 million pounds, in addition to 10 million pounds bought from the Dairy Products Marketing Association.

Fluid Milk Marketing Programs Increased

Unfavorable supply and price conditions in 1938 stimulated interest in fluid milk marketing programs and Federal programs were put into effect in four additional markets. There are now Federal licenses, agreements, and orders in 24 fluid-milk markets. During 1938, a Federal fluid-milk order became effective in Cincinnati and Toledo, Ohio, and Federal orders supplemented by State orders were adopted in La Porte County, Indiana, and New York City. The Federal and State orders for New York City, the largest fluid milk market in the country, became effective on September 1.

Purchases of dairy products under Government purchase programs
and by Dairy Products Marketing Association, August 1933-
September 30, 1938 1/

Period	Government purchase programs				Dairy Products
	Butter	Cheese	Evaporated milk	Dry skim milk	Marketing Ass'n.
	: 1,000 lb.	: 1,000 lb.	: 1,000 lb.	: 1,000 lb.	: 1,000 lb.
Aug. 1933-Apr. 1934 :	45,774	6,346	---	---	
May 1934-Apr. 1935 :	16,176	11,580	37,596	6,526	
May 1935-Apr. 1936 :	8,680	192	9,431	10,188	
May 1936-Apr. 1937 :	1,715	932	25,448	15,609	
May 1937-Apr. 1938 :	9,825	---	---	18,882	
May-June 16, 1938 :	6,827	3,445	---	21,581	
June 16-Oct. 21, 1938 :	<u>2/</u>				<u>3/</u> 113,267
Total	88,997	22,495	72,475	72,786	113,267

1/ Excluding 5,908,000 pounds of butter purchased in early 1934 with Federal Surplus Relief Corporation funds and subsequent Federal Surplus Commodities purchases with State funds for flood relief. 2/ Authorized to purchase 90 million pounds during fiscal year ending June 30, 1939. 3/ Approximate, including resale to Federal Surplus Commodities Corporation.

Imports of Butter Light

From April to September of this year, London prices of the better grades of both Colonial and European butter have been equal to or above the prices of 92-score butter in New York. Domestic imports of butter during the coming winter will probably be unusually light.

Butter prices in London reached a recovery peak in 1937 and prices in 1938 have averaged about the same as in 1937. This is in marked contrast to the decline in domestic prices. German demand has been an important factor in the strength of the London market. Importation of butter into Germany had been declining rapidly before the national control measures. But since 1934 imports have increased, particularly in 1937 and 1938. In the first 8 months of 1938 imports were 18 percent larger than in the same period of the preceding year.

British imports of butter have declined relative to total world trade, from 84 percent in 1934 to 81 percent in 1937.

The total exports of butter from the 19 principal butter-exporting countries rose rapidly from 1918 to 1931. Since 1931 the increase has been relatively small and no striking increase is in immediate prospect.

Imports of cheese into the United States in 1937 were the largest since 1931, but 20 percent less than the 1925-29 average. With the decline in domestic prices in 1938 imports declined. Imports of cheese will probably continue below the level of 1937 and 1936 until there is considerable improvement in domestic prices.

The pending trade agreement with Great Britain has no provisions that would directly affect imports of dairy products into the United States.

Cattle Disease Eradication Programs

The Federal-State tuberculosis eradication and Bang's disease programs are carried on by the Federal and State Governments as joint projects. One of the affects of these programs has been to accelerate the elimination of cows whose production has been lowered because of disease. Because of the elimination of reactors that has already taken place, the numbers eliminated annually during the next few years will probably be considerably less than in the average for the last few years.

The tuberculosis-eradication program, in effect since 1917, was greatly expanded in 1934 by the allotment of additional Federal funds. From July 1934 to September 1, 1938, there were 731,713 reactors eliminated.

The Bang's disease program was initiated in July 1934. Since that time 1,600,000 reactors have been eliminated.

Congressional action requires that on or after May 1, 1939, no Federal indemnity payments made to owners of cattle reacting to the agglutination test for Bang's disease shall exceed the amount paid by the State.

The Longer Term Outlook by Regions

The underlying shifts in agriculture which seem likely to occur including changes between enterprises and increased acreages devoted to legumes and improved pastures are such that long-time prospects are for increases in dairy production. Increases in population and increased per-capita consumption as the result of education and further recognition of the value of dairy products in the diet are also expected.

The Northeast

In line with expected increases in consumer demand for market milk, dairy production in much of the northeastern region may be expected to expand with the assistance of improved fertilizer and cropping practices. Experimental data and farm-management studies indicate increases in milk production per acre with an increase in new seeding to grass, clover, and alfalfa, and with an increase in the use of lime and fertilizer. In the Northeast this will mean considerably more feed per farm on some farms

and about the same quantity of feed from fewer acres on other farms. An offsetting factor throughout this region appears to be the continuing tendency for small, unproductive, and poorly located farms to go out of dairying.

The Lake States

In the Lake States also the underlying forces seem to be pointing in the direction of increased production of dairy products over the longer term to supply expected increases in consumption needs. In this region marked increases in alfalfa hay have been occurring and are expected to continue. Alfalfa has increased most rapidly in Wisconsin and in 1938 comprised nearly one-half of the State's total tonnage of tame hay. This was almost three times the average production of alfalfa hay for the 10-year period 1927-36. Minnesota doubled alfalfa production during the same period. The conservation program will continue to accelerate this trend. Even though increased feeding of alfalfa is partly offset by decreased feeding of concentrates, some increase in milk production may be expected to follow.

The South

Although the long-time trend in the South appears to be upward, it is probable that it will be closely paralleled by increased local consumption of dairy products in most of the main Cotton Belt. Developments on the northern margin of the South in the grass-and-lespedeza-growing areas of Virginia, Kentucky, Missouri, Tennessee, and North Carolina, and likewise in Texas, may become more significant in affecting commercial output of manufactured dairy products.

The Corn Belt

The tendency in the cash grain and meat producing areas of the central Corn Belt in the last few years has been away from milking cows except in areas already well equipped with specialized dairy machinery and manufacturing plants and thus rather definitely committed to dairying. Little change from the present level of production seems likely to occur in the immediate future but when the necessary longtime adjustments in Corn Belt agriculture are fully made, there will probably be considerably more dairying, particularly in the areas best adapted to it. The AAA programs, through their effects on farm income, may have temporarily retarded the long-time adjustments in this direction, although on the other hand the conservation measures promoted will result in an increase in hay and pasture along with the reduction in grains. This increase in roughage and decrease in concentrates will encourage an increase in dairy products, non-fat beef cattle and sheep, and will tend to restrict production of hogs and fat cattle.

At the western margin of the Corn Belt and in the Great Plains States where the drought severely reduced feed production and all live-stock numbers, milk cows decreased less than other livestock. It is expected that the long-term upward trend in dairying in this region will be resumed with more normal crop production.

Mountain and Pacific States

The population growth under way in the Western States represents an expanding demand situation. Thus far total production within the region has kept in line with changing needs. Prospective increases in dairying in both older and newer areas of production seem likely to continue this regional self-sufficiency. Any changes in production in the region as a whole are therefore likely to have little effect on the national market for dairy products, although important local adjustments may occur.

Looking at the whole national situation by regions it seems that all areas are likely to participate in the expansion. Principal increases in commercial dairy production over the longer term are likely to come in some of the old established dairy areas where improved practices are being adopted and in some of the newer areas where there have been recent marked upward tendencies in production. Long-time trends as judged from underlying forces appear to be moderately upward in the North Atlantic States, the Lake States, and in certain localized areas in the States in the South at the northern edge of the Cotton Belt and in Texas. Over the somewhat longer term it may be anticipated that fundamental adjustments in Corn Belt agriculture will cause expansion in dairy production.



Release Date
November 7, A.M.

THE OUTLOOK FOR POULTRY AND EGGS (INCLUDING TURKEYS) FOR 1939

After considering all important elements in the poultry, egg, and turkey outlook for next year, the Bureau of Agricultural Economics expects:

The feed-egg ratio to remain at favorable levels from the poultry producer's viewpoint at least until the harvest of the 1939 feed crop provided there are no important changes in the farm program;

Hatchings during 1939, therefore, to be still larger than the relatively large hatch of 1938, and probably as large as in any former year;

Poultry marketings in 1939 to exceed those of 1938; during the first half because of the heavy 1938 hatch; and during the last half because of the expected further increase in the 1939 hatch;

Fall and winter broilers - 1938-39 production to be heavier than during the past season. For this reason the situation is likely to be less favorable to producers;

Poultry storage stocks in early 1939 to be larger than in 1938, and the into-storage movement of poultry in late 1939 to exceed that of 1938 because of the heavier marketings;

Turkey production during 1938 to be nearly 4 percent greater than in 1937. A further increase in 1939 is expected;

Turkey situation in the fall of 1938 to be as favorable to producers as in 1937;

Chicken marketing situation to be less favorable in the fall of 1938 than last year because of the larger marketings. In the spring of 1939 increased consumer incomes will help to offset the effect of the expected larger marketings. The situation in the fall of 1939, with the expected heavier marketings, will depend largely on the level of consumer demand;

Laying-flock size in 1939 to be about 10 percent larger than during 1938;

Total egg production to be above 1938 because of increasing numbers of layers and a favorable feed-egg ratio;

Egg marketings in 1939, therefore, to be heavier than in 1938;

Egg storage stocks accumulated during 1939 to be larger than in 1938;

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Egg situation to remain favorable to producers for the remainder of 1938 because of the low storage holdings. During the first half of 1939 the egg situation will probably remain favorable to producers because of the feed situation and the favorable outcome of the 1938 storage deal. The situation for the last half of 1939 is likely to be less favorable than 1938.

The feed situation

The year 1938 provides the second consecutive year of big crops following a series of years of reduced production. An almost record-large crop of wheat, and above-average production of corn, grain sorghum and barley, together with a heavy carry-over of grains from last year, indicate a total supply of feed grains for the year beginning July 1 about 10 percent greater than last season. However, feed disappearance from July 1 to October 1 has been considerably larger than last year, stocks in the hands of feed producers on October 1 being only about 3 or 4 percent above a year ago. The increase over last year in numbers of animal units will probably be about 5 percent. Some further increase in livestock numbers is to be expected next year, but the feed situation is expected to favor poultrymen at least until the approach of the 1939 harvesting season.

In September the feed-egg ratio was only slightly more than half as high as at the same time in 1937 and less than 80 percent of the 10-year (1927-36) average. This relationship of feed prices to chicken and egg prices is important to the poultryman because it indicates the relationship between what the producer gets for his poultry and eggs and the cost of his poultry feed, which is his major expense item. This relationship influences the number of pullets and hens saved for layers in the fall as well as the size of the spring hatch. It also influences the amount and kind of feed fed farm flocks which directly affects egg production. It is expected that with continued low feed prices the feed-egg ratio will remain at levels favorable to poultrymen at least during the first half of 1939.

The feed-egg ratio at Chicago, by selected weeks¹
(Dozens of eggs required to buy 100 pounds of poultry ration)

	Week ended as of 1938											
Year	: Jan. :	Feb. :	Mar. :	Apr. :	May :	June :	July :	Aug. :	Sept. :	Oct. :	Nov. :	Dec. :
	: 8 :	5 :	5 :	2 :	7 :	4 :	2 :	6 :	3 :	1 :	5 :	3 :
	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.	Doz.
Average												
1927-36	4.29	5.01	5.97	6.36	6.45	6.95	6.79	6.54	5.92	5.47	4.30	4.01
1937....	7.76	9.16	9.17	9.72	10.80	11.23	10.18	8.90	8.17	7.08	4.69	4.79
1938....	5.30	6.68	6.89	6.70	5.85	5.44	5.50	4.98	4.26			

¹/ These data published monthly in the Department's Poultry and Egg Situation. Feed-egg and feed-chicken ratios based on farm prices published monthly in its monthly Poultry and Egg Production Report.

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Hatchings

Because of the favorable feed-egg ratio expected during the first half of 1939 a further increase over the relatively large hatch of 1938 is likely in 1939. Commercial hatchings during 1938 were reported as only slightly below the record high of 1936, which was in part due to an increasing tendency on the part of farmers to purchase commercially hatched chicks. Beginning in 1925 a 3-year cycle in number of chickens raised has been evident. Since the last high point in the present cycle was reached in 1930 it is expected, if the 3-year tendency is continued, that the high point will be reached in 1939.

Chicks and young chickens in farm flocks June 1, 1930-38
(1934 = 100)

	1930	1931	1932	1933	1934	1935	1936	1937	1938
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
Young chickens									
on farms	117.1	102.3	105.0	111.5	100.0	99.4	110.9	94.7	105.9

Poultry marketings

The sharp reduction in the numbers of poultry on farms during 1937, the light culling during 1938, and a below-average out-of-storage movement curtailed poultry marketings during the first 8 months of 1938.

Because of the heavier hatch, receipts for the balance of 1938 and the first months of 1939 are expected to exceed those of the previous year. Receipts of dressed poultry during the spring of 1939, however, will partially depend on the price of eggs then prevailing. In view of a liberal supply of feed and an anticipated active demand for storage-packed eggs next spring, there may be some tendency to retain more than the usual number of hens on farms. Because of the prospective heavier hatch in 1939 than in 1938, marketings of poultry during the last half of that year are likely to exceed those of 1938.

Fall and winter broilers

Reports from representative producers in the broiler-producing area of Delaware, Maryland, and Virginia point to the possibility of a very substantial increase in the number of broilers to be raised in that area this fall and winter compared with a year earlier. The abundance and relatively low price of feed in the broiler-producing sections of the Middle West will most likely maintain broiler production in that area during the remainder of the season above the level of the preceding year.

This expansion by producers already established in the industry as well as the entrance of new producers is likely to offset any price advantage gained through the more favorable feed situation.

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Poultry storage

Stocks of frozen poultry at the peak in early 1939 are expected to be heavier than in 1938 but lighter than the record holdings in 1937. Because of the larger production of chickens and turkeys in 1938 the net into-storage movement during the period of accumulations from September to January is expected to exceed that of a year ago and is likely to approximate or slightly exceed the average of the 10-year period 1926-27 to 1935-36.

The into-storage movement of poultry during the latter part of 1939 is also expected to exceed that of 1938.

United States storage stocks of poultry (Pounds - 000 omitted)

Marketing season	:	September 1	:	Net into-storage : Sept. 1 - Jan. 1	:	January 1
10-year average (1926-27 to 1935-36)		41,281		79,573		120,854
1936-37		65,488		122,399		187,887
1937-38		63,733		59,767		123,500
1938-39		54,992				

Turkey situation

The number of turkeys on hand September 1, 1938, was estimated to be nearly 4 percent greater than in 1937 and about 6 percent less than in 1936, which was the year of maximum production. Owing to abundant feed and a favorable season for growth, crop reporters estimate that turkeys will be slightly heavier than last year. Marketing is expected to be earlier this year, according to crop reporters.

Change from 1937 in turkeys on hand September 1

Region	:	Change from 1937
	:	Percent
New England		+10
Middle Atlantic		+ 9
East North Central		+12
West North Central		+10
South Atlantic		- 2
East South Central		-14
West South Central		0
Mountain		- 7
Pacific Coast		+ 5
Weighted U. S. Average		3.7

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The present situation indicates that the outcome of the current turkey season will be at least as favorable to producers as last year, especially to those who purchase their feed. Favorable factors this year include much lower prices of poults, a favorable growing season with heavier weights, smaller carry-over of turkeys and chickens in cold storage, and an increased tendency toward all-year-round consumption of turkeys. The moderate increase in numbers and weights of birds to be marketed and the present low levels of consumer incomes compared with a year ago will partially offset the favorable factors.

A favorable outcome in the current season with abundant feed available for next season would most likely result in a further increase in numbers of turkeys in 1939.

United States farm price of turkeys per pound

	October	November	December	January
	Cents	Cents	Cents	Cents
Average				
1927-36	18.9	20.2	19.9	19.3
1936-37	15.9	15.0	14.3	14.1
1937-38	16.7	17.9	18.0	17.5
1938-39				

Chicken prices

Farm prices of chickens have been declining this year since January in contrast to their normal upward seasonal trend. The indicated increase in poultry marketings during the remainder of the year is not expected to be fully offset by the increase in consumers' income in the last quarter of 1938 as compared with a year earlier.

Farm price of chickens per pound

Year	Jan.	Mar.	May	July	Sept.	Nov.
	Cents	Cents	Cents	Cents	Cents	Cents
Average						
1927-36	15.8	16.4	17.0	16.3	16.2	15.1
1937	13.4	14.4	14.8	15.3	17.4	16.9
1938	16.7	15.9	16.1	15.0	14.3	

While storage and fresh supplies of poultry in the first half of 1939 will probably be larger than in 1938, increasing consumers' incomes may offset the price effect of these supplies. Chicken prices usually advance seasonally about 15 percent from a winter low until April or May. Such an increase in 1939 would cause prices to approach those of the spring of 1938.

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The expected increase in 1939 hatchings will probably offset the price effect of the anticipated increases in consumer income during the last half of 1939. It is likely that prices in 1939, however, will not decline from their peak as much as in 1938 when large supplies of young chickens added to the effect of relatively low consumers' incomes.

Laying-flock size

The average size of laying flocks decreased about 23 percent from January 1 to September 1 of this year compared with 29 percent last year and with a usual decrease of about 25 percent. On January 1, 1938, the average number of layers per farm flock was the lowest on record for that date since records began in 1924. By October 1, however, it was 2 percent greater than on that date last year.

Hens and pullets in farm flocks on the first day of month

Year	Jan.	Mar.	May	June	Aug.	Sept.	Oct.	Dec.
	Nos.	Nos.	Nos.	Nos.	Nos.	Nos.	Nos.	Nos.
Average								
1927-36	86.5	83.2	76.0	71.8	65.2	64.6	69.8	81.1
1937	84.2	80.0	73.1	68.5	62.1	59.9	64.3	74.4
1938	77.6	75.8	68.6	65.0	59.3	59.8	65.6	

With increased numbers of early pullets entering the laying flock, a favorable feed situation, higher egg prices and lighter culling of both young and old stock, the size of laying flocks probably will be about 10 percent larger during the coming year than they have been during 1938.

Rate of egg production

Favorable weather with an abundance of feed and a very favorable feed-egg ratio has stimulated heavy feeding, resulting in increased egg production per layer during the past year. During every month from January to August, inclusive, egg production per hen continued at a record-high seasonal level. In September and October the rate dropped below the level of last year, but it still exceeded the record for all other years.

With increasing numbers of early pullets entering the flocks, and assuming average weather conditions, a rate of production above the 10-year average should continue throughout the next year, but may not reach the record-high seasonal levels of 1937 and 1938.

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Eggs laid per 100 hens and pullets of laying age in farm flocks

Year	Jan.	Mar.	May	July	Sept.	Total Jan.-Sept.	Oct.	Dec.
	No.	No.	No.	No.	No.	No.	No.	No.
Average								
1927-36 ..	17.3	37.8	55.3	42.5	32.2	349.5	25.0	14.7
1937	22.0	39.2	57.8	44.4	36.1	370.9	28.8	18.6
1938	22.7	42.2	53.1	46.5	35.3	369.0	28.2	

Total egg production

Total egg production from January 1 to September 1 of this year was about one-half of 1 percent higher than during the same period of last year and 1.6 percent higher than the 10-year (1927-36) average. Although the average number of layers was about 5 percent smaller this year than last, the increased rate of lay per bird was more than enough to offset the decreased numbers of layers.

With increasing numbers of layers expected for the next year and a favorable feed-egg ratio, total egg production during the coming year is expected to be larger.

Eggs laid per farm flock

Year	Jan.	Mar.	May	July	Sept.	Total Jan.-Sept.	Oct.	Dec.
	No.	No.	No.	No.	No.	No.	No.	No.
Average								
1927-36 ..	15.0	31.6	41.6	28.6	20.5	260.5	17.3	12.0
1937	18.5	31.7	41.8	27.9	21.1	263.3	18.3	14.1
1938	17.8	32.5	39.4	28.2	20.7	264.6	18.3	

Egg marketings

Although the production of eggs for the first 9 months of 1938 was slightly larger than last year, egg marketings were lighter than in either 1937 or 1936.

Unless weather conditions are particularly severe during the winter, the rate of marketings by the end of 1938 is expected to be larger than that of a year earlier because more birds will be added to laying flocks. An exceptionally favorable feed-egg ratio and larger numbers of laying birds are likely to result in comparatively heavy marketings of eggs throughout 1939.

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Egg storage

Stocks of shell eggs in cold storage in the United States at the peak of the 1938 season, August 1, were lower than a year ago by approximately 2,250,000 cases (or 26.5 percent), and the lightest since 1916. While stocks of frozen eggs were smaller than in 1937 they were larger than the 1927-36 average, but not sufficiently large to offset the shortage in shell-egg storage holdings.

The anticipated favorable outcome of the current storage operations is likely to result in an increased demand for eggs to be stored next spring. In addition, supplies of eggs available for storage are expected to be larger in 1939 than a year earlier. Accordingly, storage stocks of shell and frozen eggs in 1939 are expected to be larger than in 1938.

Shell and frozen eggs in cold storage on the first day of the month converted to shell-egg equivalent ¹/₁

Year	Jan.	Mar.	May	Aug.	Sept.	Oct.	Dec.
	1,000 <u>cases</u>	1,000 <u>cases</u>	1,000 <u>cases</u>	1,000 <u>cases</u>	1,000 <u>cases</u>	1,000 <u>cases</u>	1,000 <u>cases</u>
Average							
1927-36	2,723	1,374	6,316	12,096	11,348	9,838	4,786
1937	2,132	1,305	6,925	13,486	12,967	11,293	6,127
1938	3,951	2,817	6,515	10,278	9,523		

¹/₁ Cases of 30 dozen eggs.

Egg prices

Small storage stocks of eggs and improving consumers' incomes have caused egg prices to advance at more than the normal seasonal rate in the fall of 1938. A continuation of the present trend would result in a seasonal peak in November higher than a year earlier.

Farm price of eggs per dozen

Year	Jan.	Mar.	May	July	Sept.	Nov.
	<u>Cents</u>	<u>Cents</u>	<u>Cents</u>	<u>Cents</u>	<u>Cents</u>	<u>Cents</u>
Average						
1927-36	27.3	18.2	17.7	18.8	24.5	32.5
1937	23.1	19.9	17.9	19.4	22.9	28.0
1938	21.6	16.2	17.6	19.9		

Egg prices during the winter months will be materially affected by weather conditions, particularly since the reserve supply of eggs in storage is at abnormally low levels. Severe winter weather might cause an extreme although temporary rise in egg prices. The expected small carryover of storage eggs on January 1, 1939, together with improving consumers' incomes, are favorable factors which are likely to more than offset the expected larger supplies of fresh eggs during the early part of 1939.

With larger into-storage movement in prospect for 1939 and increased supplies of fresh eggs, the egg market during the last half of 1939 will probably be somewhat weaker than in 1938. If consumer incomes should improve materially, however, they may offset the unfavorable effect of large egg supplies.

Long-Time Factors in the Poultry OutlookSummary

The outlook for 1939 points to an increase in poultry and egg supplies. The expected expansion of the industry in 1939 may lead to some temporary contraction of production in 1940. Unless unfavorable conditions intervene, however, the swing of production over the next 4 or 5 years is likely to be upward from the relatively low levels of the past several seasons.

The high point in numbers of chickens on farms, around 475 millions, was reached in 1928. Since that time numbers have declined to about 387 millions in 1938 due to droughts and disturbing economic conditions. In view of the volume of production of the poultry industry at its peak in 1928, it seems reasonable to expect some re-expansion over the next few years. While the increase in population over the past decade would require some increase in average production if per capita consumption is to be maintained, the trend toward increased efficiency of layers has been such that former levels of production can be attained with fewer birds.

More specific factors pointing in the direction of an increased output of poultry and eggs are (1) the probability of more abundant feed in most of the recent drought areas, (2) a long-time tendency toward a higher rate of lay per bird, and (3) a continuation of the trend toward commercial flocks. In the case of poultry meats, the trend is in the direction of more specialized methods of production, evidence of which is to be seen in the increasing production of fall and winter broilers and turkeys.

Regional trends in egg production.

Reductions in numbers of layers during the past 10 years have occurred in all regions of the United States, the decrease having been sharpest in the central parts of the country and least marked in the areas of commercial production in the Northeast. Much of the reduction in numbers of birds, especially in the West Central States, was caused by the droughts in 1934 and 1936. More normal crop conditions in this area will undoubtedly bring about a substantial recovery of poultry production during the next few years.

Numbers of layers in the highly commercialized areas of the far Western States have shown a decline of 17 percent as compared with only 2 percent decline in the similar commercialized section of the North Atlantic States. One of the reasons for the greater decrease in the far West has been the low level of egg prices in recent years, which has made it difficult for eggs from that section to bear the cost of transportation to Eastern cities. Another factor has been the increase in the proportion of high quality eggs produced in areas other than the far West, since such eggs now compete strongly in the eastern metropolitan markets with Pacific Coast eggs.

The South since 1928 has maintained practically a constant proportion (30 percent) of the hens in the United States, but has not increased its rate of lay per bird quite as much as the rest of the country. This section will probably endeavor to increase production in the future both because of a more diversified agriculture and in order to care for its increasing urban population.

Another trend in the poultry industry is the increasing importance of large-scale commercial egg production. This development has been especially marked in the North Atlantic States during recent years and is largely responsible for the fact that this region now produces more than 12 percent of the total United States egg production as compared with only about 10 percent in 1928. Commercial egg producers usually specialize in the production of eggs of good quality during the periods of normal scarcity. Present indications point to an increase in the proportion of eggs from commercial laying flocks.

Trend in rate of lay per bird

A persistent increase in the number of eggs laid per hen has been shown since data were first made available by the Federal Census in 1920. Part of this gain may be ascribed to more intensive methods of commercial egg production. Sample flock returns indicate that commercial flocks produce about 19 percent more eggs per layer than average farm flocks. Practically all of this increase in production per layer by large over small flocks comes during the fall and winter months.

For the future, it is safe to assume that improvements in laying stock will continue and that better management methods will become more general. The industry is adopting measures to control mortality of layers, which is especially troublesome in large commercial flocks. Average production per hen will vary from year to year, but the long-time trend is upward.

Mortality in laying flocks

There has been a striking increase in the mortality of layers during the past 15 years and an almost equally striking decrease in losses of chicks and young chickens. Increased losses of layers are shown in all areas, but have been most pronounced in the heavy commercial areas and in commercial flocks. Data for farm flocks are meager, but suggest that losses in these have not increased nearly so rapidly as in commercial flocks. Records kept on flocks under close confinement indicate that mortality in these selected flocks during the past 15 years has almost doubled.

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Average annual mortality of chickens as reported
by State extension specialists 1/

Year	Young chickens		Mature chickens	
	No. of States	Percent	No. of States	Percent
	reporting	Mortality	reporting	Mortality <u>2/</u>
1925			4	11.2
1926			4	13.7
1927	3	21.8	6	12.7
1928	6	16.3	9	13.6
1929	6	20.2	8	13.8
1930	6	16.4	12	15.3
1931	7	13.8	13	15.3
1932	7	13.7	19	17.5
1933	9	11.3	23	17.8
1934			15	19.5
1935			15	18.8
1936			14	20.5

1/ The mortality of young chickens shown in the table covers the first 8 or 10 weeks of the brooding period. The South Atlantic and Western States are not represented.

2/ Average of State averages.

There have been numerous explanations for this increase in laying flock mortality, none of which are generally accepted. Many diseases and parasites have been brought under control, but as solutions have been found for older diseases, new ones have developed. One of the most destructive groups of diseases at present, of which little is known and for which no effective control has yet been developed, is leucosis. Until effective methods of control for leucosis are found, mortality of laying flocks will no doubt remain high.

Seasonal Changes in Egg Production

The proportion of the annual supply of eggs sold during winter months has been increasing since pre-war years. While this increase has not been a constant one it has now reached such proportions that it materially affects poultry producers' operations.

The accompanying table indicates the extent to which New York receipts of eggs during fall and winter months have increased relative to marketings at other seasons:

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Egg receipts at New York City - 7-year averages
Percent each month is of average annual totals

Period	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1910-16	4.0	5.3	10.9	15.9	16.1	12.2	8.7	7.7	6.6	5.3	3.5	3.5	100.0
1917-23	4.2	6.0	12.9	15.5	14.5	11.7	8.7	7.5	6.4	5.5	3.6	3.5	100.0
1924-30	5.6	7.0	12.1	15.0	14.0	11.4	8.4	6.8	6.1	5.1	3.9	4.3	100.0
1931-37	7.4	7.4	11.4	12.3	13.3	10.9	8.3	6.9	6.1	5.5	4.8	5.4	100.0

An increased supply of winter eggs can be obtained by the use of pullets from earlier hatchings, improvements in laying stock, and improved housing and management. The increase of winter egg receipts reflects, to some extent at least, the growth of commercial poultry farms specializing in egg production.

At least partially as a result of the changing seasonal trend in egg supplies there has also been a change in the trend of seasonal egg prices since prewar years. Since 1930 farm egg prices have usually reached a peak in November instead of December and the rise to and decline from this peak now occurs about one month earlier than it did during the years prior to 1931.

Trends in the production of poultry meats

Of considerable importance in the production of poultry meats is the trend toward more commercialized production methods. One of the factors making for this tendency is the development of more specialized and efficient egg production methods, which has reduced the supply of poultry meats arising as a by-product of egg production. The growing practice of sexing baby chicks and destroying surplus males is further reducing the supply of poultry meat from this source. This has encouraged the production of fall and winter broilers as a specialized enterprise, and may lead to similar methods in the production of roasters and heavier meat birds.

Until the advent of commercial production methods, broilers were mainly the by-product of the production of layers. Marketing was limited to the spring and summer months, with little or no attention given to the production of "off-season" broilers for use during fall and winter months.

Specialized broiler production on an extensive scale was begun many years ago in several sections of the country, notably the North Atlantic States and later in the Delaware-Maryland-and-Virginia area. Recently it has been started in other areas, examples of which are northwestern Arkansas and parts of Indiana.

Turkey production over the past three or four decades has shown several reversals of trend. It fell to a low level in the twenties owing to the long-continued and heavy losses from blackhead. Following the gradual adoption of control methods for this and other diseases, the decrease was arrested and numbers began to increase. The trend of production has been sharply upward during the past 10 years, and numbers during recent years exceed those of any previous period. Population increase, however, has been such that per-capita consumption is still a little below that of earlier periods.

Production of turkeys in larger flocks and under improved management methods has been characteristic of the industry in recent years. This improvement, together with the development of a year-around market for turkeys, promises a continued expansion of the industry to the point where per-capita consumption will probably equal and may exceed that of earlier years.

Increasing the consumption of poultry products

A recent development in the poultry industry has been the effort of producers and trade groups to increase the demand for eggs and poultry products through various methods of advertising and sales promotion. Efforts of this kind have taken several forms, the most important of which are the producer-consumer campaigns sponsored by organized retail groups.

In connection with these or any other efforts at sales promotion for eggs, several factors need to be kept in mind. Consumption in any season is largely determined by the amount produced. Any immediate effect of advertising or sales promotion will thus be reflected in terms of price rather than of increased per-capita consumption, as is sometimes thought.

The price at which a given volume of eggs can be moved into consumption is dependent mainly on the level of consumer purchasing power. Within limits, however, this price may be influenced by efforts on the part of the trade to "push" the product. Because of their general use and the already widespread knowledge of their food properties, it is doubtful if the demand for eggs can be greatly increased by advertising and sales promotion efforts alone.

In connection with their efforts to "push" the sale of eggs and poultry products, most retailers make special price concessions to consumers. Insofar as this results in a narrowing of marketing spreads, it reacts to the benefit of both producers and consumers.

A factor often lost sight of in efforts to increase the consumption of food products is the effect of family income on food purchases. Eggs and especially poultry meats are often in the nature of a semi-luxury for many people of limited means. Studies which have been made indicate that families whose incomes permit food purchases of \$150 or

more per capita per year eat more than twice as many eggs as those whose per capita food budget is as little as \$100 or less per year. For large sections of the population the way to greatly increased demand is clearly through an increase in the wherewithal to buy. (See table below for per capita consumption of chickens and eggs.)

Annual per capita consumption of chickens and eggs

Year	Chickens	Eggs
	Pounds per capita	Pounds per capita
Average		
1926-30	21.2	42.2
1931	20.2	40.3
1932	20.4	38.3
1933	21.1	37.2
1934	19.4	36.0
1935	18.6	34.4
1936	20.4	34.8
1937	19.0	38.6

The Relation of Foreign Trade to the Poultry Industry

Foreign trade is a comparatively unimportant factor in the American poultry industry. In 1936 the total value of poultry and egg imports into the United States was 2.5 million dollars, less than one percent of the total U. S. farm income (890 million dollars) from poultry and eggs.

United States Imports of Chinese Eggs

American egg imports from China consist chiefly of dried eggs. The imposition of a 50 percent higher duty in 1930, together with depressed economic conditions, have caused a substantial reduction in the volume of such imports since that time (see table). Imports in 1936 and 1937 exceeded those of the earlier depression years, but indications are that those of 1938 will be the smallest on record.

Since 1909 the United States tariff on eggs and egg products has been revised upward a number of times. Each tariff rate increase was chiefly at the expense of China. The application of the 1930 tariff duty amounting to 10 cents per dozen caused a virtual exclusion of imports of fresh eggs from China. The same Tariff Act resulted in the virtual elimination of Chinese albumen from the American market, while the imports of frozen yolk are still at low levels. The tariff duty on dried yolk is 27 cents per pound.

Inasmuch as egg imports from China are relatively unimportant in comparison with domestic egg supplies, even the complete exclusion of such imports would not materially benefit United States farmers. Ordinarily China buys more from the United States than from any other country in the world and much more than the United States buys from China. The maintenance or expansion of our exports to China of such products as cotton, tobacco, and wheat depends to some extent, at least, upon our ability and willingness to increase our imports from China.

Japanese poultry export programs

Reports are current in the American poultry industry concerning the Japanese plans to export frozen poultry to the United States on a large scale. Information available in the Department seems to indicate that the successful realization of any such contemplated plans is doubtful.

Total American imports of all types of Japanese poultry for the period January-August 1938 amounted to only 83,917 pounds. With the exception of two large shipments of 30,000 pounds each, in April and June, imports prior and since have been very small.

Though Japanese labor is rather cheap, the margin of profit on poultry exported from Japan to the United States is necessarily low because of the cost of freight to New York (6 cents per pound) and the import duty (also 6 cents per pound).

Imports of Eggs and Egg Products from China into
the United States, 1925-1938

Year	: Egg albumen :		: Egg yolks :		: Whole eggs :		: Eggs in shell
	: dried :	: frozen:	: dried :	: frozen:	: dried :	: frozen:	
	1,000 lbs.	1,000 lbs.	1,000 lbs.	1,000 lbs.	1,000 lbs.	1,000 lbs.	1,000 doz.
(5-year av.)							
1925-29	3,333	1,855	4,745	3,564	1,153	6,701	292
1930	2,934	681	6,402	1,586	1,185	1,980	287
1931	1,965	--	3,881	763	700	6	290
1932	1,422	--	1,170	412	20	2	222
1933	656	--	2,540	344	17	101	207
1934	391	--	2,320	393	--	955	186
1935	1,864	--	3,916	1,196	579	--	17
1936	2,358	--	4,896	805	506	--	23
1937	2,839	--	5,421	1,465	587	25	47
Jan.-July 1937	1,626	--	3,469	1,072	374	--	15
Jan.-July 1938	327	--	201	364	126	--	53

Compiled from Foreign Commerce and Navigation of the United States.

Trade agreements affecting poultry products

The American poultry industry is little, if any, affected by the trade agreements now in force. Canada is the only country where the trade agreement touches upon poultry items. The agreement provides that the duty on imported live poultry from Canada shall be reduced from 8 to 4 cents per pound and on dead chickens and guineas from 10 to 6 cents per pound. Canada reduced her import duties on live and dressed poultry from 20 percent to 17 $\frac{1}{2}$ percent ad valorem. Our concession to Canada automatically extends to all other countries which trade with the United States under the terms of the most-favored nation clause, but this is unimportant because Canada is the main source of poultry meat imports.

Since the enactment of the trade agreement, exports of Canadian poultry to the United States have increased from 42,000 pounds in 1935 to 1,292,000 pounds in 1936, finally reaching a high of 4,441,000 pounds in 1937. Imports reached this high figure largely because supplies of American poultry were low on account of the drought. The sharp upturn of 1937 was not carried into 1938. Imports in the first six months of 1938 amounted to 546,000 pounds, or 37 percent lower in volume and 34 percent lower in value than the imports of the corresponding 1937 period.

Release Date
Nov. 3, P. M.

THE OUTLOOK FOR MEAT ANIMALS AND MEATS FOR 1939

Summary

The relatively large feed crop production in 1937 and 1938 will result in further expansion in livestock production and livestock feeding in 1939. Total supplies of meats in 1939 will be larger than in 1938, but they will be somewhat below the average of the 5 years preceding the 1934 drought. The increase in total meat supplies in 1939 will be practically all in pork as the production of beef and veal is expected to be smaller in 1939 than in the present year.

The increase in hog slaughter and in pork production will represent a partial recovery from the low level of hog and pork production resulting from the severe droughts of 1934 and 1936. The decrease in the slaughter of cattle and calves, on the other hand, will be brought about largely by farmers withholding cows, heifers and calves from market.

Consumer demand for meats in 1939 will be somewhat stronger than in 1938. This improvement in demand will partly offset the effects of larger meat supplies upon prices of meats and livestock. After 4 years of improvement, consumer demand for meats weakened considerably in late 1937 and early 1938, but in the past 2 or 3 months demand has tended to strengthen as industrial activity and employment has increased.

If feed crop production continues near the level of the past 2 years, the trend in livestock production and meat supplies will be upward for a few years after 1939. It is possible that by about 1940 or 1941 meat production will increase to a level about equal to that of the 1929-33 average.

Supplies

Total meat supplies in 1939 will be larger than in 1938, but they probably will continue somewhat smaller than the average of the 5 years prior to 1934. The increase over a year earlier will be entirely in pork, since the supply of beef next year probably will be slightly smaller than that of a year earlier. Beef of better grades in 1939, however, will be in larger volume than in the present year. Supplies of lamb in 1939 may be larger, but supplies of veal will be smaller than in 1938. The increase in meat production in prospect for the coming year is a reflection of the large feed crops in 1937 and 1938 and the current low level of livestock production in important areas.

Largely because of the droughts of 1934 and 1936 and the resulting feed shortages, hog slaughter and pork production has been much below average since 1934. The effects of the droughts and feed shortage upon cattle slaughter, however, were somewhat different from the effects on hog production. Because of the importance of corn as a hog feed, the severity of the droughts in the Corn Belt and the relatively short time required to adjust hog production, the decrease in feed supplies was reflected very quickly in a marked

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reduction in hog slaughter. But in the case of cattle, numbers just before the 1934 drought were at record levels, and the droughts were an important factor in the increase in marketings and slaughter of cattle, mostly cows, in the last few years. The increase in the production of beef, however, was not large enough to offset the decrease in pork production and total meat production has been below average since 1934. In 1935 it was 23 percent below the 1929-33 average, but in each of the past 3 years it has been larger than in 1935.

Total and per capita production and consumption of federally inspected meats, including lard, and United States population, average 1929-33, annual 1934-37

Year	:	Production			:	Total	:	All meats, in-	:
	:				:	consump-	:	cluding lard 1/	:
	:	Pork,	Beef	Total	:	tion of	:	Per	:
	:	including	and	meats,	:	all meats	:	capita	:
	:	lard	veal 1/	includ-	:	includ-	:	pro-	:
	:	:	:	:	ing	:	ing	:	
	:	:	:	:	lard 1/	:	lard 1/	:	
	:	:	:	:	:	:	:	:	
	:	Mil. lb.	Mil. lb.	Mil. lb.	:	Mil. lb.	:	Pounds	:
	:				:		:	Pounds	:
	:				:		:		:
Average-	:				:		:		:
1929-33 ..	:	8,007	4,725	13,379	:	12,578	:	107.99	:
	:				:		:		:
1934	:	7,231	5,602	13,458	:	12,794	:	106.28	:
1935	:	4,406	5,167	10,274	:	10,634	:	80.57	:
1936	:	6,101	5,970	12,751	:	12,164	:	99.28	:
1937	:	5,301	5,374	11,359	:	11,816	:	87.88	:
	:				:		:	91.42	:
	:				:		:		:

1/ Excludes meat for Government slaughter in 1934, 1935, and 1936.

2/ Bureau of the Census.

Larger hog slaughter in 1939

The return of feed crop production to pre-drought levels in 1937 and 1938 also will affect cattle and hog slaughter somewhat differently. The number of pigs raised in 1938 was about 12 percent larger than in 1937, and there will be a further increase in the 1939 spring pig crop. Hog slaughter under Federal inspection in the 1938-39 marketing year, which began October 1, probably will be from 8 to 10 percent larger than in 1937-38. The percentage increase in slaughter in the calendar year 1939 over the previous year probably will be greater than that in the marketing year 1938-39. Average weights of hogs marketed in 1939 will continue heavy.

Smaller slaughter of cattle and calves expected in 1939

The large feed supplies and better pasture and range conditions probably will cause farmers to hold back cows, heifers and calves for restocking herds depleted by the recent droughts. This will result in some decrease in the number of both cattle and calves slaughtered in 1939. The decrease in cattle slaughter will be in cows and heifers, as the number of steers slaughtered in 1939 probably will not be greatly different from that of 1938. But

marketings of the better grades of grain-fed steers probably will be larger. The decrease in the number of cattle slaughtered, however, will be partly offset by a relatively large increase in average weights of cattle marketed. Consequently, the total supply of beef in 1939 may be only slightly smaller than in 1938.

Upward trend in livestock numbers expected

The number of cattle on farms on January 1, 1939, probably will be slightly larger than a year earlier and the number of hogs will be considerably larger. This increase in numbers reflects the much better feed situation in the past 2 years and probably marks the beginning of a rather general upturn in livestock production from the low level occasioned by the severe droughts of 1934 and 1936. The extent of the expansion in cattle numbers in the next several years is rather uncertain, but it appears unlikely that numbers will reach a peak as high as that reached in early 1934, when cattle numbers were the largest on record.

The expansion in cattle numbers will be accomplished by withholding cattle and calves from market, and cattle slaughter in the next few years probably will decrease moderately. The rate of increase in numbers in the next few years, however, will not be so great as that of the period from 1923 to 1934. It is not expected, therefore, that either cattle or calf slaughter will be reduced to a level as low as that of the 4 or 5 years just prior to 1934.

Trend in meat production also upward

If feed crop production continues near the level of the past 2 years, hog production will increase further, and by about 1941 hog slaughter may increase to the level prevailing before the 1934 drought. Such an increase in hog slaughter will more than offset the decrease in cattle slaughter, and during the next 3 years the trend in total meat production will be upward. By about 1940 or 1941 total meat production may reach a level equal to or greater than that prevailing in the 5 years before the 1934 drought. Per capita production of meats, however, probably will not reach a level as high as the 1929-33 average, because of the increase in population in the past decade.

Whether the upward trend in livestock production and in meat supplies in the next few years will be accompanied by a declining trend in livestock prices depends upon the changes which occur in consumer demand for meats. If the upward trend in national income and in consumer demand in prospect for 1939 should continue in the following 2 or 3 years, the effects of this continued improvement upon prices probably would largely offset the effects of the increase in meat and livestock supplies which is in prospect. On the other hand, if consumer demand continues fairly stable after 1939, the larger livestock supplies after next year probably will be accompanied by a somewhat lower level of livestock prices.

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Demand

Consumer demand for meats in the first 8 months of 1938 was not so strong as in the corresponding period of 1937. The per capita consumption of federally inspected meats, including lard, from January through August this year was about the same as that of a year earlier, but the retail prices of meat averaged about 5 percent lower. The weakness in demand for meats this year followed a period of 4 years (1933-37) in which a fairly steady improvement in demand occurred. Despite the weakness in demand this year, it was much better than at the depression low point and was stronger than in other recent years, except 1936 and 1937.

Consumer demand for meats, as well as for many other farm products, began to weaken in late 1937, as industrial activity, employment and pay rolls were sharply reduced. It continued to weaken in the first half of 1938, but in the past 2 or 3 months there has been some tendency for improvement. It is expected that industrial activity and incomes of consumers generally will be greater in 1939 than in 1938, and some improvement is already under way. The increase in incomes of consumers doubtless will be reflected in a moderate improvement in the demand for meats during 1939. This improvement in the demand for meats, however, may not be sufficiently large to offset the effects on prices of the larger meat and livestock supplies.

Index numbers of retail prices and consumption of meats,
and national income, 1928-38

(1924-29= 100)

Year	Retail prices of meats ^{1/}	Consumption of federally inspected meats, includ- ing lard	Per Capita	National income excluding agricultural income ^{2/}
		Total		
1928	106.0	100.5	98.6	104.1
1929	109.3	100.8	97.7	107.0
1930	102.5	98.0	93.6	100.4
1931	87.0	99.4	94.2	85.5
1932	68.1	98.0	92.3	67.6
1933	59.3	103.0	96.5	63.0
1934	67.8	101.5	94.5	71.9
1935	86.8	84.4	77.9	77.0
1936	85.5	96.5	88.4	87.0
1937	92.1	93.8	85.4	96.2
1938	3/ 85.9			3/ 87.0

^{1/} Bureau of Labor Statistics. 1923-25 base converted to 1924-29.

^{2/} Agricultural Adjustment Administration. Beginning with February 1938, index includes unemployment compensation paid by Social Security.

^{3/} January-August.

Release Date
November 3, P.M.

THE HOG OUTLOOK FOR 1939

Summary

Slaughter supplies of hogs in the 1938-39 marketing year, which began October 1, will be materially larger than in 1937-38. Slaughter during the current year will be larger than in any year since 1933-34, but it will be approximately 15 percent smaller than the average of the 10 years prior to the 1934 drought. Average weights of hogs marketed will continue relatively heavy.

Domestic demand for hog products, including both consumer and storage demand, in the current marketing year probably will be more favorable than in 1937-38, and the foreign demand for hog products also may be a little stronger. But the effects of the stronger demand upon hog prices probably will only partially offset the effects of the larger supplies. The spread between prices of light and heavy hogs may be relatively wide in the coming winter, as it was a year earlier.

The 1938 pig crop - spring and fall crops combined - is about 12 percent larger than that of 1937. The upswing in hog production this year is primarily a reflection of the abundant feed supplies produced in 1937 and the fact that corn prices have been low in relation to hog prices in the past year. With feed supplies for 1938-39 large in relation to livestock numbers and the hog-corn price ratio continuing high, a further increase is expected in the number of pigs raised in 1939. The percentage increase in the 1939 pig crop over that of 1938 probably will be no larger and may be smaller than the increase in 1938 over 1937.

The increase in the pig crop next year will be limited to some extent by the fact that the corn crop is again short in Nebraska, Kansas and South Dakota. If the corn crop next year is about as large as in the present year and a good crop is harvested in the Western Corn Belt, the number of pigs raised in 1940 may increase to the level of the 5 years before the 1934 drought.

Domestic Supplies

The number of hogs slaughtered under Federal inspection in the present marketing year (October through September 1938-39) is expected to be considerably larger than in 1937-38. Slaughter during the current year probably will be largest since 1933-34, but it will be approximately 15 percent smaller than the average of the 10 years prior to the 1934 drought. Average weights of hogs marketed in 1938-39 will continue heavy, but the average for the entire year probably will be no heavier than that of 1937-38, which was about 235 pounds.

Larger pig crops in 1938

The increase in slaughter this year will be a reflection of the larger number of pigs raised in 1938, most of which will be marketed in the year beginning October 1, 1938. The 1938 spring pig crop was 13 percent larger than that of 1937. In the North Central States (Corn Belt) the increase over last year was 14 percent. The increase in the Western Corn Belt, where hog production has been most sharply curtailed in recent years because of droughts, was 17 percent.

The number of sows to farrow in the fall season of 1938 (June 1 to December 1) was indicated to be about 9 percent larger than the number farrowed last fall, on the basis of breeding intentions reported about June 1. If the number of sows farrowed this fall proves to be about as indicated and if the average number of pigs saved per litter is about the same as last fall, the 1938 pig crop - spring and fall combined - will total about 69 million head, which is about 7 million head or 12 percent larger than that of 1937.

It is possible, of course, that farmers in some areas have bred more sows for fall farrow than was indicated by the breeding intentions reported about June 1. In most areas feed supplies are abundant, and the hog-corn price has continued very favorable for hog production and hog feeding. On the other hand corn production will again be short in Nebraska, Kansas, and South Dakota. Consequently it seems improbable that the number of sows to farrow this fall in those States will be as large as was indicated by the breeding intentions reported in June, when corn prospects were favorable.

Larger hog slaughter expected in 1938-39

The increase in inspected hog slaughter this year over last probably will not fully reflect the indicated increase in the 1938 pig crop over that of 1937. This situation arises partly because of the effects of the 1936 drought and the resulting feed shortage upon marketings of hogs in the summer of 1937 and partly because of the relatively large marketings of 1938 spring pigs in the past summer. As a result, slaughter in 1937-38 was large in relation to the 1937 pig crop. In the summer of 1937 a large number of hogs were carried over for finishing on new crop grains and were marketed after October 1, 1937. Marketings of 1937 spring pigs prior to October 1 of that year were small.

In the past summer the situation has been much different - marketings of 1938 spring pigs before October 1 were relatively large, and the carry-over of old hogs into the present marketing year was small. Thus, slaughter in the early months of 1937-38 included a large number of hogs that ordinarily would have been marketed in 1936-37 and the late months included a considerable number that ordinarily would have been slaughtered in 1938-39.

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On the basis of present information as to the pig crop and taking into account the early market movement of 1938 spring pigs, it appears probable that inspected hog slaughter in 1938-39 will total between 37 and 38 million head compared with 34.6 million head in 1937-38

Annual pig crop and slaughter of hogs under Federal inspection in corresponding marketing year, average 1924-33, annual 1934-38

Calendar year	Pig crop		Year beginning Oct.	Inspected slaughter of hogs 1/	Inspected slaughter as a percentage of pig crop		
	United States	North Central States			United States	North Central States	North Central States
	Thousands	Thousands		Thousands	Percent	Percent	Percent
Average 1924-33	77,991	59,370	Average 1924-25 to 1933-34	45,362	58.2	76.4	
1934	56,766	40,470	1934-35	30,680	54.0	75.8	
1935	55,013	38,015	1935-36	31,022	56.4	81.6	
1936	64,917	44,457	1936-37	34,142	52.6	76.8	
1937	61,846	41,441	1937-38	34,580	55.9	83.4	
1938	69,000	47,000	1938-39	37-38,000	53.6-55.1	78.7-80.9	

1/ Bureau of Animal Industry.

Seasonal changes in hog marketings

Slaughter supplies of hogs in each of the first 3 quarters of the present marketing year probably will be larger than in the corresponding period of last year. But unless there is again an early movement of spring pigs in the late summer of next year, any increase over a year earlier in the last quarter (July-September 1939) probably will be small and relatively much less than in the first 3 quarters.

Seasonal changes in marketings in the first half of the present year may be somewhat similar to those of last year. A fairly large seasonal increase is now in progress, and it probably will continue through January. The seasonal decrease in the late winter and early spring probably will be quite marked and somewhat similar to that of the previous year. But the increase in marketings in the late spring and early summer may be greater than the relatively small seasonal increase which occurred in the corresponding period of 1938.

In most years, when feed supplies have been large and the hog corn price ratio favorable the proportion of the yearly total slaughter in the first quarter (October-December) and in the first half (October-March) of the year has been relatively small. But the past year,

1937-38, was a notable exception. Slaughter in the first quarter and in the first half of last year represented about an average proportion of the total. Slaughter in the second quarter, was about the same as in the first quarter, whereas in other years, when the hog-corn ratio has been favorable, it frequently has been larger.

From the standpoint of factors affecting the seasonal distribution of slaughter, the hog situation is now much different from that in earlier years. The proportion of the total United States production outside the Corn Belt is greater than formerly, and the proportion of the total Corn Belt production in the Eastern Corn Belt is much larger than in the years prior to 1934. The Eastern Corn Belt is normally an early marketing area, while the Western Corn Belt usually is a late marketing area. The larger proportion of hogs in the Eastern Corn Belt doubtless was a contributing factor to the relatively large marketings in the early months of 1937-38. Because of short feed supplies in some areas, marketings from the Western Corn Belt also appear to have been somewhat earlier than usual last winter.

Another factor which may have resulted in relatively large marketings in the early months of 1937-38 was the unusually wide spread between prices of light and heavy hogs. The discount against heavy hogs undoubtedly tended to discourage some farmers from holding hogs for feeding to heavy weights.

The fact that a large number of hogs were marketed in the early months of 1937-38 that ordinarily would have been marketed in 1936-37 also contributed to the relatively large marketings in the first quarter of last year. As already indicated, at the beginning of present marketing year the carry-over of old hogs was much smaller than a year earlier, and marketings of spring pigs in the summer of 1938 (prior to October 1) was much larger than a year earlier. Consequently, slaughter in the first quarter of 1938-39 will not be increased much by marketings of old crop hogs.

But from the standpoint of the location of hog supplies, the situation this year is very similar to that of last year. A relatively large proportion of the 1938 pig crop is in the Eastern Corn Belt, an early marketing area. This will be a rather important factor in the seasonal increase in marketings now in progress.

Feeding conditions for 1938 spring pigs have been unusually favorable. Corn supplies have been abundant and pastures excellent for grazing in most areas. Hogs have made rapid gains and are reaching market weights earlier than usual.

Storage Supplies

The storage demand for hog products was relatively weak in the late fall and winter of 1937-38, and storage accumulations of pork and lard were much smaller than average. This was in marked contrast to the situation prevailing in 1936-37, when storage demand was strong and the accumulation of stocks during the winter was about the largest on record.

At the beginning of the storage season on November 1, 1937, stocks of pork and lard were relatively small, and the accumulation in stocks from November through February was about 25 percent less than that of a year earlier. This smaller increase in stocks was partly the result of the weak storage demand and partly the result of the smaller slaughter supplies in the early months of the present marketing year. The weak storage demand last winter apparently resulted from marked weakness in consumer demand and the prospects for further weakness in this demand later in the year as well as for larger slaughter supplies of hogs in the spring and summer than a year earlier.

Stocks small last spring

At the beginning of the spring season in March and April stocks of pork and lard were about 300 million pounds, or nearly one-third smaller than a year earlier. This decrease in stocks compared with a year earlier was equivalent to the products obtainable from approximately 1.9 million head of hogs of average market weight. Since the supply of hog products available for consumption in the summer consists partly of products derived from current slaughter and partly from storage stocks, the increase in slaughter from April through September over a year earlier was largely offset by the reduction in storage holdings.

Storage holdings of pork and lard, specified periods

Period	5-yr. average : 1929-30 to 1933-34 :		1935-36		1936-37		1937-38	
	Pork	Lard	Pork	Lard	Pork	Lard	Pork	Lard
	: 1,000	: 1,000	: 1,000	: 1,000	: 1,000	: 1,000	: 1,000	: 1,000
	: pounds	: pounds	: pounds	: pounds	: pounds	: pounds	: pounds	: pounds
Nov. 1	:431,192	68,785	240,663	40,702	354,950	94,748	266,414	39,477
Jan. 1	:565,206	71,671	326,777	52,718	666,891	145,809	398,565	53,693
Mar. 1	:758,930	102,796	451,418	78,725	775,688	202,476	582,654	116,979
July 1	:713,460	149,526	435,130	106,774	578,424	185,124	417,704	126,066
Oct. 1	:515,045	103,960	361,608	101,796	282,534	72,614	1/277,737	1/90,263

1/ Preliminary.

Better storage demand in prospect for 1938-39

At the beginning of the new marketing year, October 1, 1938 (1938-39) stocks of pork were slightly smaller than the very small stocks of a year earlier, and stocks of lard were a little larger than those of a year earlier. Although slaughter supplies of hogs in 1938-39 will be considerably larger than in the preceding year, some improvement in consumer demand for hog products is probable as the year progresses. Consequently price conditions in the present year may be more stable than in 1937-38. It seems probable therefore that the demand for hog products

for storage may be somewhat stronger this fall and winter than a year earlier, when it was very weak. It is not expected, however, that storage demand this year will be as strong as in the winter of 1936-37.

Exports and Imports of Hog Products

Exports of both pork and lard thus far in 1938 have been materially larger than in 1937, and larger than at any time since 1934. This increase in exports reflects the increased lard production from the larger hog slaughter in this country, the large supplies of cottonseed oil from the record 1937 cotton crop, and to some extent decreased hog slaughter in Europe.

From 1925 to 1933 exports of both pork and lard were sharply reduced chiefly because of increased hog production in Europe and the restrictions placed on imports in several foreign countries. A further marked reduction in exports occurred in 1934 and 1935 as a result of the short supplies and relatively high prices of hog products in this country. Exports continued small in 1936 and 1937, and despite the increase this year, total exports in 1938 will be smaller than in all other post-war years prior to 1934. In the period 1926-30 the average annual exports of pork were equivalent to the pork obtainable from about 3 million hogs of average market weight, and in the same period exports of lard were equal to the lard obtainable from about 22 million hogs. In 1926-30 average number of hogs slaughtered under Federal inspection was about 45.3 million head. In 1937, exports of pork were equivalent to the pork obtainable from less than 1 million hogs and lard exports were equal to the lard from about 5 million hogs. Inspected hog slaughter in 1937 was 31.6 million head.

Exports, imports, and production of pork and lard,
average 1926-30, annual 1931-37

Year	Exports 1/		Imports of pork 2/	Production 3/		Exports as a percentage of production		Imports of pork as a percentage of total domestic consumption
	Pork	Lard		Pork	Lard	Pork	Lard	
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Pct.	Pct.	Pct.
Average								
1926-30	381	759	12.0	8,550	2,299	4.5	33.0	0.15
1931	224	601	4.0	8,734	2,279	2.6	26.4	0.05
1932	175	576	5.7	8,915	2,351	2.0	24.5	0.06
1933	202	612	2.9	9,124	2,446	2.2	25.0	0.03
1934	211	458	1.6	8,342	2,072	2.5	22.1	0.02
1935	136	115	10.5	5,953	1,267	2.3	9.1	0.17
1936	118	137	41.8	7,535	1,673	1.6	8.2	0.59
1937	114	163	74.8	6,886	1,434	1.7	11.4	1.05

1/ U. S. Dept. of Commerce. Includes shipments to noncontiguous territories.

Pork converted to a dressed weight basis.

2/ U. S. Dept. of Commerce. Imports for consumption.

3/ Estimated total production from all hog slaughter.

Pork imports reduced

Imports of pork thus far in 1938 have been considerably smaller than in 1937, but they have continued larger than in years prior to 1937. The decrease in imports reflects the larger production of pork in this country in 1938 and also the fact that in the past year prices of pork in the United States have declined more than in some foreign countries. The increase in imports in 1936 and 1937, on the other hand, apparently resulted partly from the short supplies of hog products in this country. From 1934 through 1937 pork prices in the United States advanced much more than in foreign countries, with the result that prices in this country became higher than in some foreign countries, whereas in most years prior to 1935 they were lower.

Although imports of pork in 1937 were large in relation to those of other years, they represented only about 1 percent of the total quantity of pork consumed in this country during the year. A large part of the pork imports in 1937 and 1938 were canned hams, mostly from Poland and to a lesser extent from other European countries. To some extent they represent a specialty trade which has developed. Europe as a whole, imports a considerable part of its meat requirements, and probably will continue to do so. Hence, it appears that the imports of pork in the past 2 years have been partly of a temporary nature brought about chiefly by the very short hog supplies in this country which resulted from the severe droughts of 1934 and 1936.

Increase in exports expected

The European demand for American hog products probably will be stronger in 1939 than in the present year. With prospects for a considerably larger hog slaughter in this country and reduced production in Europe, some further increase in exports may occur. The outlet for American hog products, however, will continue to be limited by import and exchange restrictions in certain importing countries.

Exports of pork which go chiefly to Great Britain, probably will be larger in the current marketing year than in the preceding year. With a larger domestic lard production expected some increase in lard exports in the present marketing year probably will occur. This increase, however, may not be large because of the reduction in supplies of cottonseed oil in this country.

A further reduction in imports of pork is in prospect for 1939 largely because of the expected increase in hog production in this country. Reduced European hog production also may cause certain foreign markets to be more attractive as an outlet for exports from European countries than the United States market.

Prices

Hog prices experienced one of the most marked declines on record from mid-August to late December 1937, when prices of butcher hogs at Chicago dropped from about \$13 to \$7.85. This decline was the result of a large seasonal increase

in hog marketings along with a marked weakness in consumer demand for meats and in storage demand for hog products. Prices strengthened moderately in February and early March, as supplies of hogs were seasonally reduced. In early March the weekly average price of butcher hogs at Chicago was about \$9.45. From mid-March to mid-May prices declined somewhat, but this was followed by a fairly sharp rise from late May to mid-July. In mid-May the weekly average price of butcher hogs was about the same as at the low point in December, by late July it was about \$9.65.

Since late July the trend in hog prices has been downward, reflecting the contra-seasonal increase in marketings in August and early September. By mid-October the weekly average price of butcher hogs at Chicago was about \$7.85.

Inspected slaughter, live weight, and cost to packers for
hogs, average 1928-32, annual 1933-37

Year beginning Oct.	Inspected slaughter 1/	Live weight		Cost to packers	
		Average	Total	Average per 100 pounds 2/	Total
	Thousands	Pounds	Million pounds	Dollars	Million dollars
Average					
1928-32	46,363	231	10,723	6.92	742
1933	43,911	225	9,872	4.07	401
1934	30,680	220	6,742	7.75	523
1935	31,022	232	7,191	9.79	704
1936	34,142	221	7,538	10.18	767
1937	34,580	3/ 234	3/ 8,105	3/ 8.42	3/ 682

1/ Bureau of Animal Industry.

2/ Not including processing tax payments November 1933 to January 1936.

3/ Preliminary.

Wide spread between prices of light and heavy hogs

In January and February the spread between prices of light and heavy hogs was unusually wide for that time of year. Butcher hogs weighing from 290-350 pounds were quoted at more than \$1 less than those weighing 180-200 pounds. Prices of light hogs in this period also were somewhat higher than prices of medium weight hogs, whereas they are usually somewhat lower during the winter. The spread between prices of light and heavy hogs narrowed considerably in March and April. During the summer, spread between the average price of butcher hogs and the average price of packing sows also was unusually wide, and in most of the summer prices of

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light butcher hogs were somewhat lower than prices of medium weight hogs. Ordinarily, prices of light and medium weight hogs are about the same in the summer months. The relatively wide spread between prices of light and heavy hogs during the winter of 1937-38 reflected to a considerable extent the relatively large proportion of heavy hogs in the market supplies.

Prices in 1938-39

For the marketing year 1938-39, which began October 1, slaughter supplies of hogs will be considerably larger than in 1937-38. But it is expected that consumer demand for meats in the present marketing year will average stronger than in the preceding year. In the early months of the year consumer demand may be weaker than a year earlier, but it probably will improve as the year progresses. Storage demand also may be stronger this winter than a year earlier. The improvement in demand, however, probably will offset only partly the effects of the larger supplies of hogs upon hog prices.

With abundant feed supplies in most areas and prospects for a continuation of a favorable hog-corn price ratio, the proportion of heavy hogs in the market supply will again be large. This probably will cause the spread between prices of light and heavy hogs to be relatively wide, although it may not be as wide as it was last winter.

Production Outlook

With the 1938 corn crop nearly as large as the average of the 10 years prior to 1934 and with feed supplies, including production and carry-over, for 1938-39 large in relation to livestock numbers, it is expected that there will be a further increase in the number of pigs raised in 1939. The percentage increase in the 1939 pig crop over that of 1938, however, probably will be no larger and may be smaller than the increase in 1938 over 1937. If the increase in the number of pigs produced in 1939 should be about the same as in 1938, slaughter supplies of hogs in 1939-40 probably would be about 35 percent greater than at the low point reached following the 1934 drought, but they would still be from 5 to 10 percent smaller than the average for the 10 years prior to 1934. If corn production in 1939 is as large as in 1938 and if a good crop is harvested in the Western Corn Belt, the pig crop in 1940 and hog slaughter in 1940-41 might increase to a level equal to the average of the 10 years prior to the 1934 drought.

Trends in hog production by regions

As indicated in the accompanying table, the effects of droughts of 1934 and 1936 upon hog production were much more severe in the West North Central States than in other regions. Although there has been some increase in the number of pigs produced since 1935, the pig crop in the Western Corn Belt in 1938 was 34 percent less than the average of the 5 years before the 1934 drought. In the East North Central States the 1938 pig crop was only 2 percent below the pre-drought average, and in all other regions, except the Western States, it was considerably greater than average.

Combined spring and fall pig crops, by regions, average 1929-33, annual 1934-38

Region-	Average 1929- 33	1934	1935	1936	1937	1938 1/	1938 as a percentage of average 1929-33
	Thou- sands	Thou- sands	Thou- sands	Thou- sands	Thou- sands	Thou- sands	Percent
E. N. Central	20,174	15,445	15,442	18,081	17,860	19,706	97.7
W. N. Central	41,012	25,025	22,646	26,376	23,581	27,156	66.2
All N. Central	61,187	40,470	38,088	44,457	41,441	46,862	76.6
North Atlantic	1,378	1,158	1,270	1,511	1,615	1,621	117.6
South Atlantic	4,941	4,570	4,943	5,642	5,925	6,350	128.5
South Central	9,349	8,510	8,779	10,595	10,166	11,466	122.6
Western	3,177	2,058	2,006	2,712	2,699	2,684	84.5
United States	80,032	56,766	55,086	64,917	61,846	68,983	86.2

1/ Preliminary.

In part of the West North Central States, namely Iowa, Minnesota and Missouri the corn crop was fairly large in both 1937 and 1938, and in these States a considerable further increase may occur in the 1939 pig crop. But in Nebraska, Kansas and South Dakota corn production was short in both 1937 and 1938 following short crops in 1934 and 1936. In these States the increase in the 1939 pig crop probably will not be large, and for the West North Central States as a whole the increase in 1939 may be less than in 1938.

In the East North Central States, where the 1938 pig crop was nearly as large as the pre-drought average, the corn crop this year was somewhat smaller than the large crop of last year, but feed supplies in this area are large. With the hog-corn price ratio continuing favorable it seems probable that there will be a further increase in the pig crop in 1939. This will carry hog production in that area to a level beyond the pre-drought average, but it probably will not be so large as the high level of 1933. Assuming that feed production in the East North Central States next year will be near the level of this year, further increases in hog production will depend to a greater extent upon the relation of hog prices to prices of feed grains and to prices of other livestock and livestock products than in other regions.

In the Southern States, where hog production has increased considerably in recent years, the 1938 pig crop was about 25 percent larger than the 1929-33 average. This increase reflects the larger production of corn and peanuts in those States as well as the relatively high prices of hogs in the past 3 or 4 years. Feed crop production in most of the Southern area this year was about as large as it was last year, but with hog prices this year lower than a year earlier, further expansion in hog production in the South probably will be rather moderate.

Trends in hog prices

Although some decrease in cattle slaughter is expected during the next few years, it will not be so large as the increase in hog slaughter. Thus, the trend in meat production will be upward, and by about 1941 it is probable that total meat production will be as large as the average of the 5 years preceding the 1934 drought. Because of the increase in population the per capita production of meats by 1941 is not likely to be so large as it was prior to the 1934 drought, but it will be larger than in the past 3 or 4 years.

Whether this upward trend in hog slaughter and in total meat production will be accompanied by a downward trend in hog prices will depend largely upon the changes in incomes of domestic consumers and to a much lesser extent upon the foreign demand for American hog products, especially lard. If the level of consumer incomes in the next few years should increase to a level equal to that of ^{late} 1936 and early 1937 or perhaps slightly higher, this improvement in demand probably would largely offset the effects on hog prices of the increase in hog slaughter and total meat supplies. Even with little improvement in incomes of consumers in the next few years, and if hog slaughter increases to about the level prevailing in 1932 and 1933, just prior to the 1934 drought, it is not expected that hog prices will decline in these years to as low a level as that of 1932 and 1933.



THE BEEF CATTLE OUTLOOK

Summary

Total slaughter of both cattle and calves in 1939 is expected to be smaller than in 1938. The reduction will be mostly in calves and breeding stock as steer slaughter probably will show little change.

In view of the large supplies and relatively low prices of feed, some increase in cattle feeding over the previous year is anticipated. The relatively strong demand for cattle for restocking and herd expansion and the smaller number of feeder animals generally available will tend, however, to prevent any large increase in the number of cattle fed.

Average weights of cattle slaughtered are expected to be heavier and general finish higher than in the previous year, but total beef supplies for consumption probably will be somewhat smaller.

With industrial activity and consumer buying power increasing, the demand for meats in 1939 is expected to be somewhat greater than in 1938. This improvement in consumer demand and the reduction in cattle slaughter will be price strengthening factors next year. On the other hand the larger supplies of hogs and of all meats will be price depressing factors.

With somewhat larger market supplies of grain-fed cattle in 1939 than in 1938, and smaller marketings of cows and heifers, the spread between prices of the upper and lower grades of slaughter cattle probably will continue relatively narrow. Prices of slaughter cows, particularly, are likely to be maintained at a fairly high level relative to prices of other kinds of slaughter cattle.

Cattle numbers at the beginning of 1939 probably will be slightly larger than a year earlier. This increase is expected to be the first phase of a new cattle production cycle which, barring the recurrence of serious droughts, is expected to continue for several years.

The rate and extent of the prospective expansion in cattle numbers during this new cycle cannot be accurately predicted at this time, but it appears unlikely that numbers will reach as high a peak as was reached in early 1934 at the peak of the last cycle. Expansion will take place largely in the Great Plains States where cattle numbers were sharply reduced as a result of the droughts of 1934 and 1936. Some expansion also probably will occur in the states east of the Mississippi River, especially if there is further diversion of land in this area from food and fiber crops to grass and hay production.

Expansion in cattle numbers will be accomplished largely by holding cattle from slaughter which, for the next few years, will result in decreasing slaughter supplies of cattle and calves from recent levels. The trend in hog slaughter and in total meat supplies during the period of increasing cattle numbers is expected to be upward regardless of a reduction in cattle slaughter. The increase in total meat production is expected to result in a downward trend in cattle prices in the next few years even though slaughter of cattle should be reduced, unless accompanied by rather marked improvement in consumer demand for meats.

Beef Cattle Outlook

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There seems little reason, therefore, to expect that the cattle situation over a period of years will be improved by reducing slaughter for several years in order to build up numbers that will permit a yearly slaughter output materially larger than the present.

Cattle Supplies

Slaughter of cattle and calves during most of 1938 was near the relatively high levels of the 4 preceding years. Although combined slaughter under Federal inspection will be about 1 million head less than in both 1937 and 1936, it will be about as large as in any single year prior to 1934, and will be much above the average for the years 1920 to 1933. Most of the decrease from 1937 has been in the slaughter of calves. For the first 9 months cattle slaughter totaled 7,277,000 head compared with 7,396,000 a year earlier, and calf slaughter totaled 4,147,000 head compared with 4,837,000 in the corresponding period last year.

Because of the larger proportion of cattle in the combined slaughter of cattle and calves and the heavier weights of cattle slaughtered this year than last, the percentage reduction in total weight has been somewhat less than that in number of head. For the first 9 months, total live weight of cattle and calves slaughtered under Federal inspection amounted to 7,456,000,000 pounds compared with 7,552,000,000 pounds a year earlier, a reduction of 1.3 percent.

Slaughter of cows, heifers reduced; steer slaughter increased.

All of the decrease in cattle slaughter this year from last has been in the slaughter of cows and heifers, since the slaughter of steers has been somewhat larger. In the January-September period the number of steers slaughtered was 3,461,000 head, an increase of 331,000 head or 10.6 percent over a year earlier; the number of cows and heifers slaughtered was 3,522,000 head, a decrease of 427,000 head, or 10.8 percent, from 1937.

The relatively large number of steers slaughtered this year reflects the increased number of cattle finished on grain and concentrates in the principal feeding areas this year compared with last. The quality of cattle slaughtered has reflected the much better feed situation, supplies including a much larger number and proportion of choice and prime beef steers. The larger proportion of well finished cattle has resulted in the average price of all beef steers and the average cost of cattle to packers this year being more nearly equal to last year's averages than the spread between prices of different grades of cattle this year from last would indicate.

Heavier weights, better finish indicated.

If the number of cattle on farms increases more during 1939 than in 1938, as is now expected, it will be because slaughter of cattle and calves in that year will be less than in 1938. The reduction in slaughter doubtless will be in calves and in cows and heifers, with little change in the number of steers slaughtered. Since feed supplies during much of 1939 will be even more plentiful and feed prices lower than in 1938, the finish and weights of cattle slaughtered in the coming year will continue relatively high.

Cattle Feeding SituationIncreased Feeding Probable

Some increase in cattle feeding during the 1938-39 cattle feeding season might be expected. Fall pastures are the best in years, supplies of feeds, both grains and hay, are large in relation to livestock numbers, and prices of feeds are low in relation to cattle prices and considerably lower than a year ago. Such information as is now available indicates that the increase in feeding may not be very great.

Shipments of stocker and feeder cattle from stockyard markets into the Corn Belt States during the 4 months, July to October, were but little different from those in the corresponding period last year. Available information on direct shipments (those not going through stockyards markets) indicate that these also were little different from a year earlier. Shipments into the Corn Belt from stockyards during the first 6 months of 1938 were only about 3 percent larger than in the same period of 1937 and all of the increase was in the first 3 months of the year.

Not only are inshipments but little different this year from last, but there apparently was a smaller number of cattle grazed in the Corn Belt in 1938 to be fed out this fall and winter. Last fall there was a relatively large number of cattle bought in 1936 that were roughed through the winter and pastured in the summer, largely because of the scarcity and high prices of feed in the winter and spring of 1936-37, following the 1936 drought. These cattle went to increase the cattle available for feeding last winter and spring.

It would seem that if cattle feeding in the 1938-39 season is to be on a materially larger scale than in 1937-38, the movement into the Corn Belt during November and December of this year would have to be much larger than for the corresponding period last year. If shipments from markets during these 2 months should equal the largest shipments for these months in the last 8 years the July-December total this year would be about 11 percent larger than that of a year earlier.

Total shipments of cattle during November and December this year from the western cattle states which furnish the greater part of the market supply of stocker and feeder cattle are not expected to be any larger than last year, if as large. Hence if there is to be a material increase over last year in the shipments of stocker and feeder cattle from public markets during these months, a much larger proportion of the total receipts will have to be purchased for feeder purposes.

Changes in the number of stocker and feeder cattle shipped into the Corn Belt from year to year, do not always reflect changes in the number of cattle fed. There are always considerable numbers of locally-raised cattle that go into the feedlot supply; and when feed grains are abundant and relatively cheap and feeder cattle prices relatively high, the number of such cattle and calves fed, especially in small lots, is likely to be considerably increased. Such probably will be the situation this year.

Beef Cattle Outlook

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Because prices of fat cattle in 1938 were much lower than in 1937, returns from cattle feeding were much less favorable this year than last despite the fact that the cost of producing fat cattle (cost of feeders plus value of feed) was less. Few cattle marketed before May realized enough to cover production costs, but margins on cattle marketed during the summer months were generally sufficient to make operations profitable.

Narrow Price Spread Shows Strong Feeder Demand

While prices of feeder cattle since July 1 have averaged somewhat lower than a year earlier the reduction has been much less than that in prices of the better grades of fed cattle. The spread between prices of feeder cattle and fat cattle this year, therefore, has been much less than it was a year earlier. The spread last year was about the widest of record and indicated that feeders did not believe that the level of fat cattle prices then prevailing would continue. The spread in recent months has been very narrow, and in relation to the level of cattle prices has been about the narrowest of record. This narrow spread indicates a rather strong demand for feeder cattle, which doubtless reflects the abundant supplies and relatively low prices of all kinds of feed, and possibly an expectation that fat cattle prices will make little recession from present levels during the next year.

Imported Supplies

Cattle Imports Smaller in 1938

Imports of cattle from all countries during the first 8 months this year totaled 284,439 head, a decrease of 32 percent from those of a year earlier. The decrease in total live weight was relatively greater than the reduction in numbers, since imports this year included a much larger proportion of light cattle than in the previous year. Imports from Canada from January through August totaled about 82,000 head, 66 percent less than a year earlier; but imports from Mexico numbered about 202,000 head, which is 17 percent more than a year earlier. Most of the increase in imports from Mexico was in non-quota cattle weighing between 175 and 700 pounds, the duty for which is 2.5 cents per pound.

Almost all of the reduction in total cattle imports during the first 8 months was in cattle weighing 700 pounds and over. Under the Canadian Trade Agreement, effective January 1, 1936, the duty on this class of cattle was lowered from 3 cents to 2 cents per pound for an annual import quota of 156,000 head from all countries combined. Imports in excess of this quota are subject to a duty of 3 cents per pound. In 1937, the quota was filled by early August, and for the year as a whole it was exceeded by about 26,000 head. But from January through August this year imports of cattle weighing 700 pounds and over totaled only 61,000 head, which is less than half the annual quota.

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Cattle: Imports from Canada, Mexico, and all countries, by weight groups,
1936 and 1937, and January-August 1937 and 1938

Year and period	175 lb. to 699 lb.			700 lb. and over, not for dairy purposes			All Cattle		
	Canada	Mexico	All	Canada	Mexico	All	Canada	Mexico	All
	Number	Number	Countries	Number	Number	Countries	Number	Number	Countries
1936	35,149	140,439	176,435	136,533	21,992	158,675	244,409	164,730	410,299
1937	50,355	172,717	223,837	157,468	24,792	182,333	306,689	199,460	507,324
Jan.-Aug.									
1937	24,115	145,482	170,310	136,919	24,494	161,481	244,342	171,692	417,152
1938	3,973	170,797	175,192	32,668	28,777	61,482	82,081	201,726	284,439

United States Department of Commerce.

The marked reduction in cattle imports from Canada this year apparently has been due in part to the relatively greater decline in this country than in Canada in prices of finished cattle, and in part to the fact that supplies of such cattle in Canada since the severe drought in the western cattle area of that country in 1937 have been small. Canadian exports of cattle to Great Britain this year have been larger than in the previous year, but the increase has not been sufficient to offset the reduction in exports to the United States.

The increase in imports of light cattle from Mexico apparently has been the result of the strong demand for stocker cattle in this country, devaluation of the Mexican peso, and the somewhat unstable economic conditions in Mexico. A Federal tax of 12 percent ad valorem was imposed in August on cattle exported from Mexico, and this may tend to discourage further exports of Mexican cattle this year and next. Present indications are that imports of cattle from Mexico in 1939 will be smaller than in 1938, but that imports from Canada may be somewhat larger. The total number of cattle imported in 1939, however, probably will not be greatly different from that in 1938.

Meat Imports Also Smaller

Imports of canned beef into the United States in the first 8 months of 1938, mostly from Argentina, Uruguay, and Brazil, totaled about 52 million pounds, 13 percent less than in the corresponding period of 1937. Imports of fresh, cured, and pickled beef and veal also were smaller. Combined imports of cattle and calves and of beef, in terms of dressed weight, were equivalent to about 5 percent of the total dressed weight of cattle and calves slaughtered under Federal inspection. In the first 8 months of 1937 such imports were equivalent to nearly 7 percent of the dressed weight of inspected slaughter and were the second largest of record, being exceeded only in 1929.

Cattle Prices

From midsummer 1936 to the early fall of 1937 the price trend for well-finished grain-fed steers was sharply upward. The rise during this period was of record proportions and in early October 1937 prices of the better grades reached the highest level since 1919. Factors accounting largely for this advance were: (1) An increasing demand for meats as a result of expansion in consumer income to the highest level in 6 years; (2) greatly reduced supplies of grain-fed cattle and of hogs on account of feed shortage caused by the drought of 1936. During the latter part of the period when prices of the better grades were rising rapidly the prices of the lower grades were declining seasonally and these opposite movements caused the cattle price spread to become the widest of record in October 1937. Late in that month, however, prices of the better grades broke sharply and in less than 4 months dropped nearly 50 percent. By February 1938, the price spread had become relatively narrow.

Factors largely responsible for the drastic decline in prices of well-finished cattle from October 1937 to February 1938 were: (1) Some increase in supplies of grain-fed cattle and a large seasonal increase in supplies of hogs during this period; (2) rapidly decreasing industrial activity after August 1937 which adversely affected consumer buying power and weakened the demand for meats; (3) a sharp decline in hide prices.

Some Recovery Follows Sharp 1937 Decline

Prices of the better grades of slaughter cattle recovered slightly in February and March 1938, and held fairly stable until May when an upward movement started that continued until the end of September. In the latter month, prices of Choice and Prime grade slaughter steers at Chicago, averaging nearly \$12 per 100 pounds, were approximately \$3 higher than in February but more than \$5 lower than in September of last year. The summer rise in prices of the better grades of slaughter cattle this year was partly seasonal, although improvement in consumer income and in the demand for meats were contributing factors. Slaughter supplies of well-finished cattle were seasonally large throughout the summer and were much larger than in the summer of 1937, when they were unusually small.

Prices of the lower grades of slaughter cattle advanced seasonally from March to July 1938. Since July, however, prices of such cattle have declined as slaughter supplies of cows and heifers and of grass steers have increased seasonally. Although consumer demand for meats during the first 9 months of 1938 was considerably weaker than a year earlier, marketings of cows and heifers during this period were smaller. In September prices of Good grade slaughter cows at Chicago averaged about \$6.75, about \$1.25, or 15 percent, lower than a year earlier. Prices of Choice and Prime steers on the other hand were down more than \$5, or about 30 percent.

Largely because of the weaker consumer demand for meats, total payments by packers for cattle slaughtered under Federal inspection from January through September this year were about 9 percent less than in the corresponding period of 1937. The total live weight of inspected cattle slaughter was about equal to that of a year earlier, but prices were lower. But with the exception of 1937, payments by packers for cattle during the first 9 months of 1938 were the largest for the period since 1930, and were about 85 percent larger than during the first 9 months of 1933 when prices of slaughter cattle were the lowest since 1906.

Beef Cattle Outlook

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Cattle and Calves: Inspected slaughter, total live weight, average
and total cost to packers, average 1924-33, annual 1933-37, and
January-September 1937 and 1938

	Inspected	Slaughter 1/	Cattle	Calves	Total live weight	Average cost per 100 pounds to packers	Total cost to packers
	Thou-	Thou-	Million	Million	Million	Dollars	Dollars
	sands	sands	pounds	pounds	pounds		
Av. 1924-33:	8,850	4,819	8,433	848		7.47	8.79
1933	8,655	4,907	8,261	876		4.14	4.63
1934	9,943	6,078	9,229	1,126		4.55	4.66
1935	9,666	5,679	8,794	1,075		6.54	6.95
1936	10,972	6,070	10,104	1,174		6.26	6.90
1937	10,070	6,281	9,051	1,190		7.42	7.78
Jan.-Sept.							
1937	7,396	4,837	6,660	892		7.78	7.99
1938	7,276	4,147	6,692	765		7.07	7.88

1/ Bureau of Animal Industry. Excludes Government slaughter based on unrounded numbers in 1934, 1935, and 1936.

Improved Demand For Meats Likely.

Some improvement in industrial activity occurred in the United States during the third quarter this year. Present indications are that this improvement will continue through the fall at least. And for 1939 it is expected that industrial activity, consumer income, and the demand for meats will be somewhat greater than in 1938. This improvement in consumer demand and the reduction in cattle slaughter will be price strengthening factors next year. On the other hand the large supplies of hogs and of all meats will be price depressing factors.

With somewhat larger market supplies of grain-fed cattle in 1939 than in 1938, and smaller marketings of cows and heifers, the spread between prices of the upper and lower grades of slaughter cattle probably will continue relatively narrow. Prices of slaughter cows, particularly, are likely to be maintained at a fairly high level relative to prices of other kinds of slaughter cattle.

Cattle Production Outlook

New Production Cycle Starting

Present indications as to the various items (calf crop, slaughter, etc.) which cause changes in cattle numbers during the year point to a small increase in cattle numbers at the beginning of 1939 over the present estimate of 65,930,000 head on farms on January 1, 1938. This increase is expected to be about 1 percent, in which case the number on January 1, 1939 would be about 66,500,000 head, or about the same as on January 1, 1937.

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The calf crop of 1938 probably is a little smaller than that of 1937, reflecting the decrease in cow numbers during 1937. Imports of cattle and calves in 1938 will be somewhat below those of last year. Slaughter of cattle and calves under Federal inspection during 1938 is expected to total between 15,000,000 and 15,500,000 head, compared with the 1937 total of 16,350,000 head, with most of the reduction in the slaughter of calves. Total slaughter of cattle and calves in 1938 will be about 24,000,000 head, a reduction of about 1,000,000. Death losses of both cattle and calves in 1938 are expected to be somewhat smaller than in 1937.

Most of the increase in cattle numbers during 1938 is expected to occur in the area west of the Mississippi River. This is the area where nearly all of the reduction in cattle numbers from the peak of 1934 has taken place. Such increase in cattle numbers as occurs this year will be largely the result of the decrease in calf slaughter in 1938. Records of marketings and slaughter by states show that nearly all of the reduction in calf marketings and in slaughter has been in this western area.

As indicated in the cattle outlook report released last year, the number of cattle on farms January 1, 1938, probably was the low point in the present cattle number cycle. Barring the recurrence of a series of drought years such as prevailed from 1934 to 1937, it seems fairly certain that cattle numbers will tend to expand for some years. The rate and extent of this expansion cannot be predicted at this time, but it appears unlikely that cattle numbers will reach as high a peak in the present cycle as was reached early in 1934 at the peak of the last cycle. In the cattle cycle that started about 1913 cattle numbers increased rapidly in a period of high and rapidly-advancing prices; in the cycle that began about 1929 cattle numbers increased rapidly during a period of low and rapidly-falling prices. There is no present reason to anticipate that during the next few years prices will advance as in the earlier cycle or decline as they did in the later one. In other words, prices are not likely to be so high as to encourage a rapid increase in numbers by a sharp reduction in slaughter nor so low as to discourage or prevent marketings in reasonable relation to the numbers in the country.

Numbers To Be Increased By Reducing Slaughter

If numbers do increase during the next few years, it will be largely because of withholding cattle from slaughter and this will result in a decrease in slaughter of cattle and calves from the level of the last few years. Since supplies of hogs and hog slaughter are expected to expand rather sharply during the next few years, total meat supplies doubtless will be considerably larger than the average of the last 4 years even though cattle and calf slaughter decreases somewhat. This increase in total meats is expected to result in a downward trend of cattle prices during the next few years even though slaughter of cattle should be reduced unless there is a rather marked improvement in consumer demand for meats during this period.

Present cattle numbers make possible a total annual slaughter of cattle and calves of between 24 and 25 million head without causing material change in basic cattle numbers. A slaughter of this volume is considerably above the average of the 15 years 1920 to 1934. There seems little reason, therefore, to expect that the cattle situation, over a period of years, will be improved by reducing slaughter for several years in order to build up numbers that will make possible a yearly slaughter output materially larger than the present.

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Number of cattle on farms, by regions, January 1, specified years

	Atlantic	North Atlantic	South Atlantic	Central Atlantic	North Central	South Central	Western	Mississippi	Missouri	United States	East of United States	Percent of total
1920	5,190	10,898	4,943	4,549	20,213	11,897	12,710	25,580	44,820	70,400	36.3	63.
1925	4,472	9,721	4,241	3,777	19,464	10,503	11,195	22,211	41,162	63,373	35.0	65.
1928	4,383	9,161	3,772	3,649	17,055	9,249	10,053	20,965	36,357	57,322	36.6	63.
1930	4,647	9,659	3,855	3,782	18,784	10,091	10,185	21,943	39,060	61,003	36.0	64.
1932	4,759	10,393	4,207	4,275	20,372	11,025	10,739	23,634	42,136	65,770	35.9	64.
1934	4,879	11,101	4,732	4,831	22,938	13,510	12,271	25,543	48,719	74,262	34.4	65.
1935	4,750	10,819	4,799	4,971	19,749	12,167	11,274	25,339	43,190	68,529	37.0	63.
1936	4,789	11,120	4,670	4,705	20,213	11,351	11,081	25,284	42,645	67,929	37.2	62.
1937	4,888	11,063	4,568	4,519	18,621	11,898	10,891	25,038	41,410	66,448	37.7	62.
1938	4,961	11,117	4,498	4,566	18,568	11,535	10,685	25,142	40,788	65,930	38.1	61.

Release Date
November 3, P.M.

THE OUTLOOK FOR SHEEP, LAMBS AND WOOL FOR 1939

Summary

The trend in sheep numbers in the United States probably will be upward during the next few years. If weather and range conditions in the Western States are favorable, some increase in numbers in that area probably will occur. Likewise, favorable feed conditions and shifts in crop acreages from food and fiber crops to feed crops and pasture may result in some further increase in the native sheep States and in Texas.

The expansion in sheep numbers probably will be reflected in increased production of wool. But the size of the lamb crop is affected to a considerable extent by feed supplies and weather conditions during the lambing season. Weather and feed conditions in all of the principal lambing areas are generally favorable as those last spring are very unusual; consequently the 1938 lamb crop may not be equalled for several years, even though sheep numbers increase.

The 1938 lamb crop was 5 percent larger than that of 1937 and was the largest crop on record. This increase in the number of lambs produced already has been reflected in larger marketings of lambs thus far in the present marketing year, which began last May. Marketings during the remainder of the year, up to May-1, 1939, will depend partly upon the number of lambs fed this fall and winter and also upon the number of 1938 lambs carried over for marketing in the late spring and summer of next year.

Indications as to the number of lambs that will be fed this winter are now rather uncertain. Though feed supplies are abundant in most feeding areas, relatively few feeder lambs had been purchased prior to mid-October. It appears that the unfavorable returns from last year's feeding operations are tending to discourage some feeders. It is also possible that the number of Texas lambs sold as feeders will be smaller than a year earlier, in view of the current low prices of feeder lambs and prospects for greater returns if such lambs are held until next spring and summer and sold after shearing. But a relatively large number of Texas lambs may be finished on wheat pastures in Texas and Kansas.

Some improvement in consumer demand for meats and in wool prices is expected during the coming year. Although the change from a year earlier in the total supply of sheep and lambs in the 1938-39 fed-lamb marketing season (December-April) is now uncertain, it does not seem probable that any increase in supplies that may occur would be sufficiently large to offset the effects on prices of the improvement in demand. Consequently, prices of fed lambs in the coming marketing season probably will average no lower and may average higher than a year earlier.

Domestic mill consumption of wool has increased considerably from the low level of last spring, and wool prices in this country have risen moderately

since June. Available supplies of wool in this country and abroad are larger than a year earlier. In the first half of 1938 the spread between domestic and foreign prices was considerably less than the tariff, and imports of wool into the United States have been very small. But with the recent rise in domestic prices the spread has widened and is now not much less than the tariff. Some further increase in domestic mill consumption is in prospect for 1939, and this will be a supporting influence to wool prices. But unless there is some rise in foreign prices, advances in domestic prices of wool in the coming year will be rather moderate.

Supplies

The lamb crop in 1938 was about 5 percent larger than that of 1937 and the largest on record. The increase this year was the result of a larger crop in the western sheep States, including Texas and South Dakota, as the crop in the native States was slightly smaller. The increase in the Western States amounted to about 1,741,000 head or 9 percent, and most of the gain was in four States; California, Texas, Wyoming, and South Dakota.

Estimated lamb crop in the United States and specified regions, average 1931-35, annual 1935-38

Year	: Western States : excluding Texas	: Texas	: Native States	: United : States
	: <u>Thousands</u>	: <u>Thousands</u>	: <u>Thousands</u>	: <u>Thousands</u>
Average 1931-35	: 16,020	: 2,998	: 11,105	: 30,124
1935	: 15,138	: 2,254	: 11,195	: 28,587
1936	: 16,230	: 3,848	: 10,901	: 30,979
1937	: 15,293	: 4,158	: 11,329	: 30,780
1938	: 16,577	: 4,615	: 11,029	: 32,221

The increase in the lamb crop is largely accounted for by the increase in the number of lambs saved per 100 ewes, although the number of breeding ewes on January 1, 1938, was slightly larger than a year earlier. For the country as a whole the number of lambs saved per 100 ewes (percentage lamb crop) of 88.7 was about the largest in the 15 years of record. In the native States, the percentage lamb crop was smaller than in 1937, while in the Western States it was larger.

Larger lamb slaughter in 1938-39

In view of the larger lamb crop, slaughter supplies of sheep and lambs for the 1938-39 lamb marketing year, which began May 1, probably will be larger than for 1937-38, when inspected slaughter of sheep and lambs was 17,437,000 head. In 1931 the lamb crop was only slightly smaller than that of 1938, and inspected slaughter for the year 1931-32 totaled 18,648,000 head. Whether slaughter in 1938-39 will be as large as in 1931-32 will depend partly upon the number of lambs which are retained to increase breeding stock or for marketing in the following marketing year.

Inspected slaughter of sheep and lambs in the first half of the present marketing year, May through October 1938, will total about 9.5 million head, or 7 percent larger than that of a year earlier. All of this increase and probably more was in the slaughter of 1938 lambs as slaughter and market records indicate that the number of sheep and yearlings slaughtered was smaller this year than last. In most years inspected slaughter of sheep and lambs in the first half of the marketing year represents about 50 or 51 percent of the yearly total. If slaughter in the first half of the current year is about the usual proportion of the yearly total, this total will be about 18.6 million head, or approximately the same as in 1931-32, when slaughter was the largest on record. In this case the total inspected slaughter for the entire year 1938-39 and for the last half of the year will be about 6 or 7 percent larger than in the previous marketing year.

Lamb Feeding Situation

The number of lambs to be fed during the 1938-39 feeding season was rather uncertain in October. Shipments of feeder lambs into the Corn Belt to the end of September and reports from the Western States point to some decrease in feeding operations this year. Most lamb feeders in the 1937-38 season experienced rather heavy losses, and in the past the volume of lamb feeding has usually been reduced in a season following one when returns from feeding operations were unfavorable. On the other hand, feed supplies are generally more abundant this year than last and prices of most feeds are much lower; also, feeder lamb prices are materially below those of a year ago and are low relative to prices of feeder cattle, and the number of lambs available for feeding is larger this year.

As was the case a year ago, the number of lambs fed this year will be determined to considerable extent by the disposition made of the large number of feeder lambs in Texas. Shipments of lambs and sheep (mostly feeder lambs) from Texas billed to points outside the State other than stockyard markets in July and August were somewhat larger this year than last. September shipments also may have been somewhat larger, but apparently considerably more feeder lambs remained in the State on October 1 than a year earlier.

Shipments of feeder lambs from stockyard markets into the Corn Belt States for the 3 months July through September were a little smaller this year than last. Shipments into the States east of the Mississippi River were much smaller, while those into the States west of the Mississippi were slightly larger. Information as to direct shipments, not going through stockyards, indicates a somewhat smaller direct movement during the July-September period this year.

Reports from the Western States about October 1 as to the probable volume of feeding in that area point to some decrease in the number of lambs to be fed this year. The situation in a number of these States, however, was rather uncertain. The number of feeder lambs raised in these States sold under contract before August 1 was very small, in sharp contrast with a year earlier. Early October indications were that the number to be fed will be smaller this year in all of the important Colorado feeding areas. A rather sharp decrease in the Scottsbluff area of Nebraska also was indicated, but there may be a considerable

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increase in lamb feeding in the farming areas in the eastern part of the State. California is the only important lamb feeding State in the Western region where some increase in feeding seemed likely.

Earlier in the season a heavy movement of feeder lambs to wheat pastures in the southern Great Plains Region appeared probable, as early seeded and volunteer wheat in this area had made a very promising start. But high temperatures and lack of rain in October caused serious deterioration of these pastures, except in western Kansas. In October, the movement of lambs into Kansas was rather heavy but there is little likelihood that the movement of lambs to wheat pastures this fall will be so large as appeared probable earlier in the season.

Prices

In the spring of 1937 prices of lambs reached the highest level since late 1929 but they declined sharply during the last half of 1937. In early June last year the weekly average price of good and choice spring lambs at Chicago was about \$12.50, but by late November the weekly average was less than \$9. This drop in prices was partly seasonal, but it also reflected the marked weakness in consumer demand and the sharp drop in wool prices in the last few months of 1937. At the beginning of the fed lamb marketing season in December 1937, the Chicago weekly average price of good and choice fed lambs was about \$8.85, and by early February 1938 it had declined to about \$7.25. Prices advanced somewhat in February and March, but for the 1937-38 fed-lamb marketing season (December through April) the average price of fed lambs was about \$2 lower than that of a year earlier.

Inspected slaughter, live weight, and cost to packers for sheep and lambs, December-April, average 1929-30 to 1933-34, annual 1934-35 to 1937-38

Period	Inspected		Live weight		Cost to packers	
	slaughter	1/	Average	Total	Average	Total
	Thousands	Pounds	Mil. lb.	Dollars	Mil. dol.	
Dec.-Apr.:						
Average 1929-30 to						
1933-34	6,759	86	583	7.56	44	
1934-35	6,634	87	574	7.88	45	
1935-36	6,863	90	616	9.49	58	
1936-37	7,234	89	642	9.82	63	
1937-38	7,231	89	647	7.86	51	

1/ Bureau of Animal Industry. Excludes Government slaughter in 1934.

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Lamb prices decline sharply in August and September

At the beginning of the 1938 lamb crop marketing season, prices of spring lambs were about \$3.00 lower than a year earlier. In early June the weekly average price of good and choice spring lambs at Chicago was about \$9.50 compared with \$12.50 a year earlier. There was little seasonal decline in prices of such lambs in June and July, but prices weakened considerably in August and September as marketings increased. In mid-October the weekly average price of good and choice slaughter lambs at Chicago was about \$8.10.

Prospects for lamb prices in 1939

Probably the most important difference between the lamb price situation for the coming year and that of last year is that some improvement in consumer demand for meats is in prospect for next year. It is also expected that wool prices and pelt values will be higher in 1939 than in 1938.

The total live weight of sheep and lambs slaughtered under Federal inspection in the 1937-38 fed lamb marketing season was about the largest on record. The change in the total supply for the coming fed-lamb season from that of a year earlier is now rather uncertain but it hardly seems probable that any increase in supplies would be sufficiently large to offset the effects on prices of the improvement in demand. Consequently, prices of fed lambs in 1938-39 fed lamb season probably will average no lower and may average higher than a year earlier.

Prices of new crop lambs in the spring and summer of 1939 will be supported by a stronger consumer demand for meats, but the level of prices of such lambs will depend partly upon supplies of new crop lambs and the supply of yearlings carried over from the present marketing year. No indication of the volume of marketings of new crop lambs in 1939 is possible at this time, but the number of yearlings marketed in the spring and summer of 1939 probably will be as large as or larger than the number marketed in the spring and summer of 1938.

Production Outlook

The trend in stock sheep numbers and in lamb and wool production was sharply upward in all of the important producing areas from 1923 to 1931. Since 1931 the number for the entire country has been fairly stable, but rather important changes have occurred in some regions.

Since 1931 there has been little change in number of stock sheep in the native sheep States, with a slight upward trend until 1936, and a decline during 1936, and partial recovery during 1937. In the Western sheep States, excluding Texas, the trend in stock sheep numbers since the peak year of 1931 has been distinctly downward. This has been offset in part by the continued sharp increase in Texas which brought the total in that State on January 1, 1938 to the highest point on record. The total for the United States on January 1, 1938 was about 3.5 percent below the peak numbers in 1934.

Although 1937 was the most favorable year that western sheep producers have had since 1930, the downward trend in stock sheep numbers in the Western States, excluding Texas, continued through 1937, and on January 1, 1938, the number was the smallest since 1927. A number of factors were responsible for the downward trend in numbers. Among these were the low prices of lambs and wool during the depression years, the poor condition of ranges resulting from a succession of years of short precipitation, and reductions, actual and prospective, in the number of sheep

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permitted to graze on the public domain and the national forests. It seems probable that this downward trend has now run its course and that January 1, 1938, was the low point. If weather and range conditions are fairly favorable during the next few years some increase in numbers is likely. This increase will take place in the States where numbers were reduced the most following the droughts of 1934 and 1936.

Number of stock sheep and lambs on farms in the United States and specified regions, January 1, 1923 and January 1, 1931-38

Year	Western sheep States, excluding Texas	Texas	All Western	Native sheep States	United States
	Thousands	Thousands	Thousands	Thousands	Thousands
1923	19,320	3,490	22,810	9,787	32,597
1931	27,252	6,749	34,001	13,719	47,720
1932	26,774	6,952	33,726	14,028	47,754
1933	25,878	7,444	33,322	14,002	47,324
1934	26,211	8,059	34,270	14,184	48,454
1935	25,265	7,092	32,357	14,277	46,634
1936	24,757	7,234	31,991	14,400	46,391
1937	24,199	8,750	32,949	14,102	47,051
1938	23,443	9,100	32,543	14,254	46,797

With the record numbers of sheep now in Texas it is a question as to how much, if any, further increase can take place there. Barring severe droughts and feed shortage, it seems probable that the upward trend may continue. There has been a rather marked tendency for the area of sheep production in that State to expand in the last few years. This expansion is both northward and westward from the main sheep region into other parts of the large pasture areas of the State and also northeastward into the more strictly farming areas. The reduction in cotton acreage and the increased production of feed crops are factors that have contributed to this movement in some areas. It seems probable that in most of these newer areas the production of market lambs will be an increasingly important element in the industry. This will be reflected in the increased use of mutton-type rams and an expansion in the production of early lambs to be marketed in the spring months.

The super-abundant supplies of fall pasture and of all kinds of feeds in the Corn Belt and other native sheep States, and the low prices of feeds this fall will tend to encourage production of all kinds of livestock, including sheep. If a succession of years of ample precipitation should follow the series of recent drought years, and there is a permanent shift in acreage from soil depleting crops, with a further expansion in hay and grass lands, a moderate expansion in sheep numbers probably will result.

With some increase in stock sheep numbers in prospect in both the Western and native sheep States, production of wool may be expected to reflect this expansion. But the size of the lamb crop is materially affected by weather and feed conditions during the lambing season. Feed and weather conditions in all of the principal lambing areas as generally favorable as during the 1938 season are very unusual. Hence, the number of lambs produced this year may not be equaled for several years, even though stock sheep numbers increase.

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WOOL

Supplies

Domestic wool production slightly larger in 1938

Production of shorn wool in the United States in 1938 was estimated to be about 369 million pounds, which was an increase of about 2 million pounds over 1937 and about the same increase over the 5-year average 1933-37. The increase in domestic wool production this year over last was the result of a larger number of sheep shorn.

Domestic supplies larger in 1938 than in 1937

Available supplies of apparel class wool in the United States on September 1, 1938, including the unshorn portion of the 1938 clip, were considerably larger than on that date in 1936 and 1937. As a result of the large imports and reduced mill consumption in 1937, the carry-over of old wool into the 1938 marketing season was much larger than the carry-over a year earlier. Since the beginning of the new marketing season last April, imports have been much smaller than a year earlier, but the reduction in imports has been only about equal to the decrease in mill consumption from April through August from that of a year earlier.

Carry-over into 1939 season may be smaller than in 1938

During the remaining months of the 1938 marketing season (to April 1, 1939), mill consumption of wool in the United States is likely to be considerably larger than in the same months last year. If imports remain small, as now appears likely, such an increase in consumption probably will result in smaller stocks of wool on April 1, 1939, than at the beginning of the current year.

World wool production slightly below 1937 peak

Preliminary estimates of wool production in 14 countries, including most of the principal Southern Hemisphere producing countries and the United States, indicate that world wool production in 1938 will be slightly smaller than that of 1937. World wool production in 1937, exclusive of Russia and China, totaled 3,487,000,000 pounds, which was about 1 percent larger than in 1936, and was the largest production in recent years.

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Production, imports and mill consumption of apparel wool, grease basis, in the United States, annual 1935-37, and April to August 1937 and 1938

Year beginning Apr. 1:	Production :	General imports 1/ :	Mill consumption
	Million pounds	Million pounds	Million pounds
1935-36	431	83	2/ 673
1936-37	427	164	582
1937-38	433	60	407
Apr.-Aug. 1937	3/ 433	48	221
Apr.-Aug. 1938 prel.	3/ 435	7	189

Imports from the Bureau of Foreign and Domestic Commerce, consumption from the Bureau of the Census.

1/Weight as reported, greasy scoured and skin wool added together.

2/Stocks of apparel wool in the United States were large at the beginning of 1935.

3/Production for entire year.

Wool production in Australia in 1938 is expected to show a reduction of about 6 percent as compared with 1937, but some increase in production is in prospect in South Africa and New Zealand and in some Northern Hemisphere countries.

Southern Hemisphere supplies for 1938-39 about equal to 5-year average

Supplies of wool from the Southern Hemisphere in 1938-39, the bulk of which will be available for market in late 1938, are expected to be slightly larger than those of 1937-38 but about the same as average supplies for the 5 years 1932-33 to 1936-37. The prospective decline in wool production in the Southern Hemisphere in 1938-39 is more than offset by the larger carry-over into the current season.

Supplies in importing countries larger than a year ago

Supplies of raw wool in most foreign importing countries, except Japan, apparently were somewhat larger at the beginning of the 1938-39 Southern Hemisphere marketing season on September 1 than a year earlier, when stocks were relatively small. The sharp decrease in Southern Hemisphere exports in the 1937-38 season was largely the result of the decline in exports to Japan and the United States.

Consumption and Trade

After remaining at a relatively high level since early 1935, mill consumption of wool in the United States declined rapidly in the second half of 1937 and early months of 1938. Consumption of apparel wool on a grease basis, in the first 8 months of 1938 was 30 percent smaller than in the same months of 1937, and it was the third smallest for the period on record (since 1918). Sales of wool items to consumers did not decline

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nearly so much as mill consumption, and the large stocks of manufactured and semi-manufactured wool goods which accumulated in 1937 were sharply reduced in the first half of 1938.

Since April, domestic mill consumption has increased greatly and the rate of consumption in July and August was higher than a year earlier. It is expected that the recent increase in mill consumption will be maintained during the remainder of this year, but because of the small consumption in the first half of the year, consumption for the entire year 1938 is likely to be smaller than in 1937. With stocks of manufactured goods remaining relatively small and with prospects for an improvement in consumer demand next year, domestic mill consumption of wool in 1939 may exceed that of 1938.

Mill consumption of apparel wool, grease basis, 1925-34
average, annual 1935-37, and January-August 1936
and 1937

Period	:	Consumption
	:	<u>Million pounds</u>
1925-34 average	:	505
1935	:	713
1936	:	618
1937	:	524
Jan.-Aug. 1937	:	403
Jan.-Aug. 1938 <u>1/</u>	:	286

Bureau of the Census.

1/ Preliminary.

Imports likely to continue fairly small

The small domestic mill consumption of wool in the latter part of 1937 and early months of 1938 was accompanied by a sharp decrease in United States imports. Imports for consumption of apparel wool in the first 8 months of 1938 totaled only 15 million pounds compared with 134 million pounds in the same months of 1937, when imports were relatively large, and an average of about 35 million pounds for those months in the 5 years 1932-36.

Although mill consumption in the early months of 1939 probably will be larger than a year earlier, imports of apparel wool in the first half of 1939 are expected to be fairly small because of the relatively large stocks of wool on hand in the United States. But imports may be somewhat larger than in 1938.

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Prices

In the spring of 1937 domestic wool prices reached the highest level since 1929. As a result of weakness in mill demand and generally unfavorable business conditions wool prices declined rapidly in the latter part of 1937 and early months of 1938 in both domestic and foreign markets. By June 1938 the United States average farm price of wool was about 45 percent below the high months of 1937 and was lower than at any time since 1935.

The increase in domestic mill consumption in July was accompanied by an improvement in prices, and prices of wool in October were somewhat higher than in early summer. Average prices for territory combing wools at Boston in October were about 10 percent above the low point in June but were about 25 percent lower than a year earlier.

Government loan supports domestic prices

The loan program for wool producers provided an important stabilizing influence on domestic prices after April 1938. Under this program, loans are being made available between April 15 and December 31 by the Commodity Credit Corporation to producers on wool from the 1937 and 1938 clips. According to a recent announcement, a total of 93 million pounds of wool had been appraised for loans up to October 15; of this quantity loans had been completed on 67 million pounds, with the remainder in process. The loans have averaged about 17.6 cents per grease pound at warehouses.

Spread between domestic and foreign wool prices reduced

Declines in domestic wool prices in 1937 and 1938 were accompanied by somewhat smaller declines in foreign prices. In the first half of 1938, the spread between domestic and foreign prices was somewhat less than the tariff and imports were very small. Prices of wool in foreign markets have shown little change since May, but the decline in the exchange value of the British pound in recent months has tended to lower quotations for foreign wool in terms of United States currency. Prices of domestic wool, on the other hand, have advanced and the spread between foreign and domestic prices has widened.

Prospects for wool prices in 1939

The trend in domestic wool prices during the coming year will depend to some extent upon changes in domestic mill consumption, but probably to a greater extent upon changes in wool prices in foreign markets. It appears probable the prospective improvement in mill consumption in the coming year will be a supporting influence to domestic prices. On the other hand, the spread between domestic and foreign wool prices has increased in recent months and is now not much less than the tariff. Consequently, without some rise in foreign prices, in terms of dollars, advances in wool prices in this country from present levels will be rather moderate.

Release Date
November 3, P.M.

THE MOHAIR OUTLOOK FOR 1939

The mohair situation has improved materially since last spring. Prices have risen considerably, and it is reported that practically all of the spring clip of hair and a substantial proportion of the fall hair in Texas has been sold. With prospects for increased automobile production in 1939, the demand for mohair from this source probably will be more favorable than in 1938. Production of mohair in 1938 appears to have been at least as large as and perhaps larger than in 1937. The number of goats on hand at the beginning of 1939 is likely to be slightly larger than a year earlier.

Supplies

On the basis of rather inadequate indications, it is expected that the total supply of mohair in the United States at the end of 1938 will be no larger and may be smaller than a year earlier. Mill consumption for the year 1938 probably was not greatly different from that of 1937, and any increase in production in 1938 will be offset by smaller imports. Domestic production in 1937 was estimated to be about 16.6 million pounds, which was the largest since 1932. Production in 1938 may be slightly larger than in 1937. Imports for consumption during the period from January through August 1938 were less than 100,000 pounds compared with 660,000 pounds in the corresponding period of 1937.

Prices and Consumption

In late 1937 and early 1938 the mohair situation was very similar to the wool situation. Prices of mohair declined greatly; consumption apparently was sharply reduced and large stocks had accumulated. But in recent months the improvement in mohair prices has been much greater than in wool prices. Prices of adult mohair in Texas last spring were reported as low as 23 - 25 cents per pound compared with about 55 cents a year earlier. But this fall, sales were reported in Texas at prices ranging from 37 to 41 cents for adult hair and 47 to 60 cents for kid hair. Practically all of the spring clip in Texas was sold by the end of the summer, and it is reported that a considerable proportion of the 1938 fall clip has been sold. A year earlier very little of the fall clip had been sold by October.

Although no figures are available on mill consumption of mohair, it seems likely that the sharp rise in prices since last spring was accompanied by a material increase in consumption. Apparently this increase in consumption has been largely by manufacturers of woollen goods, since purchases for plush fabrics for automobiles and furniture

have been relatively small. In view of the prospects for an increase in the output of automobiles next year some improvement in the demand for mohair for plush fabrics may occur. There also may be some further improvement in the demand for mohair for woolen manufacture. In early October it was reported that supplies of kid hair in trade channels were relatively scarce.

Trends in Domestic Production

From 1924 to 1931 domestic production of mohair increased from 10 million pounds to more than 19 million pounds. Most of this increase was in Texas, which is by far the leading mohair producing State. Since 1931 production has ranged from 15.6 million pounds to 16.9 million. Imports of mohair have been relatively small in recent years, exceeding 1 million pounds in only 2 years since 1929. From 1931 through 1934 production in this country apparently exceeded domestic consumption, and there was a considerable accumulation of stocks. These stocks were greatly reduced in 1935 and 1936, however, when consumption apparently exceeded production. Thus it would seem that in the past 5 years mohair production has been sufficient for domestic consumption needs, and any marked increase in goat numbers and mohair production from present levels would reduce if not destroy the effectiveness of the present tariff on mohair, unless there is a corresponding increase in the domestic demand for mohair.

Release Date
October 31, P.M.

THE OUTLOOK FOR HORSES AND MULES FOR 1939

Summary

The number of horses and mules on farms continued to decline during 1937 and will probably continue the downward trend for several more years, according to the Bureau of Agricultural Economics.

Prices of horses and mules reached the highest peak in 17 years during 1937, but during the latter part of 1937 and the first 8 months of 1938 prices dropped 10 to 15 percent below the preceding year. When related to all farm-products prices, however, prices of horses and mules were higher during the first 8 months of 1938 than at any time since 1916. Colt production has followed, with about a 2-year lag, the trend of prices of work animals as related to all farm-products prices. It is expected that this price relationship will tend to encourage colt production during the next year or two.

The production of 832,000 horse and mule colts during 1937 was still about 400,000 head short of the number that would replace the 1937 disappearance of work animals over 1 year of age. Even with expected increases in the colt crops and smaller disappearance it will still be several years before the decline in numbers of work animals will end.

Events of the last several years have created a number of changes in the farm-power situation. The droughts in 1934 and 1936 resulted in forced sales of horses in some areas because of a shortage of feed and high prices for feed. Sleeping sickness and old age have increased the death rate of work stock. Labor, both family and hired, has become more mechanically minded. The result has been a decrease in the amount of farm work done by workstock and an increase in the amount done by tractors. The rapidity with which this shift continues and the time when it will be halted will depend upon the relative prices of work animals and tractors and of feed grain and tractor fuel, upon the farm labor situation resulting from changing economic conditions, upon further improvement in tractors, and upon the development of disease control.

Colts Increasing as Work Animals Decline

The number of horses on farms declined 2.5 percent during 1937. This was a continuation of the decline in numbers that began in 1915, and by January 1, 1938 there were only 11,163,000 head or about half as many horses on farms as in 1915. The decrease in numbers of mules which began in 1925 continued through 1937; on January 1, 1938, there were 4,477,000 head or three-fourths as many as in 1925. The number of horse and mule colts under 1 year of age, however, has been increasing since 1932, and on January 1, 1938 there were 832,000 head -- the largest number since 1924.

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Estimated Horses and Mules on Farms by Geographic Divisions

Geographic divisions	Number on farms Jan. 1, 1938 (000) head				Percentage change during 1937			
	Total	Colts under 1 year of age	All	All	Horse	Mule	Colts	Colts
	Horses	Mules	Horse	Mule	Horses	Mules	Colts	Colts
N. A.	801	62	16	-	-1.1	-1.6	+14.3	-
E. N. C.	2,479	226	152	8	-1.7	-3.8	+ 7.8	+14.3
W. N. C.	3,806	447	283	28	-5.2	-3.0	+ 3.3	+21.7
S. A.	495	1,014	24	3	+ .2	+ .3	+14.3	.0
S.C.	1,906	2,610	118	61	+ .8	-2.4	+ 9.3	+15.1
West.	1,676	118	134	5	-2.4	-4.1	+ .8	+25.0
U. S.	11,163	4,477	727	105	-2.5	-2.1	+ 5.2	+16.7

There was a decrease in total horse numbers during 1937, but a slight increase was shown in the South Atlantic and South Central States. The decrease in numbers in the West North Central States was especially heavy at 5 percent, where deaths from sleeping sickness were numerous. In other areas, decreases ranged from 1 to 2 percent. For mules, a decline in numbers during 1937 was shown for all sections of the country except in the South Atlantic States, where a slight increase occurred.

Estimated Number of Horses and Mules on Farms

Year	Horses and mules on farms Jan. 1: (000) head				Percentage change during the year		Disappearance ^{1/} of horses and mules over 1 yr. of age	
	Total	over 2 yrs.	1 to 2 years	Under 1 yr.	All horses & mules	All horse colts	Percent	No. (000)
1920	25,742	22,833	1,750	1,606	-2.4	-17.0	7.5	1,924
1925	22,560	21,038	772	750	-2.6	- 1.2	5.0	1,333
1930	19,124	17,981	560	574	-3.4	- 9.1	6.2	1,178
1931	18,468	17,375	571	522	-3.6	-11.1	6.1	1,120
1932	17,812	16,822	526	464	-2.7	+ .2	5.3	940
1933	17,337	16,404	468	465	-2.0	+17.4	5.1	886
1934	16,997	15,984	467	546	-1.8	+22.3	5.8	982
1935	16,683	15,471	544	668	-2.2	+ 9.0	6.6	1,098
1936	16,319	14,926	650	734	-1.0	+ 6.4	6.6	1,084
1937	16,016	14,527	708	781	-2.3	+ 6.5	7.5	1,208
1938	15,640	14,040	768	832	--	--	--	--

^{1/} This figure consists almost entirely of death loss including slaughter. It includes imports and exports, sales of horses for non-farm use, and any other disappearance from farms.

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The production of 852,000 head of horse and mule colts under 1 year of age during 1937 was still about 400,000 head short of replacing the 1937 disappearance of work animals over 1 year old. In past years, colt production has followed, with about a 2-year lag, the trend of prices of work animals as related to all farm-products prices. This price relationship leveled off during the last 4 years and was followed by a slower rate of increase in the colt crops in 1936 and 1937 than during the 3 preceding years.

Disappearance has been running heavy in recent years caused partly by the 1934 and 1936 droughts, sleeping sickness, and old age. Whether this disappearance will continue relatively as heavy during the next few years will depend largely upon weather conditions and disease losses. Even if disappearance should be smaller and colt production should continue to increase, the decline in numbers of horses and mules will continue for several more years.

Prices Lower

Prices for horses and mules followed a sharp upward trend from 1933 to 1936, and during 1937 reached the highest peak in 17 years; but in the latter part of 1937 and the first 8 months of 1938, prices dropped 10 to 15 percent below the preceding year. Fewer receipts and lower prices featured the main horse and mule markets during 1938. Lower prices were general for all classes of work horses, including draft horses, young mares and geldings. The mule markets are opening slow this fall partly because of the lower prices of cotton, with sales reported at \$25 to \$40 per head below a year earlier.

HORSES AND MULES PRICE PER HEAD APRIL 15 AND SEPTEMBER 15

Year	Horses		Mules	
	April 15	September 15	April 15	September 15
1930	\$ 70	\$ 61	\$ 87	\$ 72
1931	61	52	75	62
1932	57	55	65	62
1933	61	62	68	70
1934	76	71	88	84
1935	91	86	106	103
1936	101	90	115	107
1937	100	93	121	113
1938	88	82	107	100

Although a continued decrease in horse and mule numbers is expected for several more years, it is not probable, barring abnormal conditions, that prices of work animals will regain during the next few years the high level of 1936 and 1937. But during the first 8 months of 1938, prices of work animals have been higher in relation to all farm-products prices than at any time since 1916. Therefore, even though actual prices of work

animals in 1938 are below 1937 levels, the present prices of horses and mules in relation to all farm-products prices are still favorable to colt production.

Production Outlook

Events of the last several years have created a number of changes in the farm-power situation which are now becoming significantly evident. Disease and old age have increased the death rate of work stock. Colt production has increased substantially but many of these colts are too young for work. Droughts in 1934 and 1936 resulted in high feed prices and in exceedingly short feed supplies in some areas. And labor, both hired and family, has become more mechanically minded. The result has been a decrease in the amount of farm work done by work stock and an increase in the amount done by tractors and other mechanical power.

Once the change from horses to tractor is made, the new power unit is established for several years, or until the tractor is worn out. Consequently, the volume of tractor purchases during the last few years and those of the next few years will affect the demand for horses on farms for several years to come. Only a limited amount of information is available relative to the number of tractors now on farms. It is evident, however, that since 1930 when there were about 300,000 tractors on farms, the number bought by farmers has exceeded considerably the number necessary to replace those that have been worn out. It is known also that sales of tractors manufactured and sold for use in the United States were at high levels in 1936 and 1937.

The modern all-purpose tractors, made in sizes to meet the needs of many groups of farmers, displaces more work stock than did the older types that were not designed for work in row crops. Of the 216,200 wheel-type tractors manufactured and sold in the United States in 1937, about 85 percent were of the all purpose type, and nearly 43 percent of them were equipped with rubber tires.

It seems probable that the combined number of horses and mules of work age will continue to decrease for several years and that tractors will be used to do an increasingly large proportion of the work in agriculture. The extent to which this trend toward increased dependence on tractor power continues and the time when it will be halted will depend upon a number of factors, some of which are difficult to appraise at this time. With a general tendency to increase the acreages of forage crops and pastures, farmers who expect to continue to use animals for farm power may find it to their advantage to produce work stock for their own needs rather than to depend upon buying replacements. Those who are interested in raising animals primarily for sale 2 or 3 years from now, probably will be confronted by continued strong competition from the use of tractors and of a less favorable horse-and-mule price situation than has existed during the last few years. But they will have a more favorable feed situation than during the drought period. In general, the improved price relationship between work stock and other farm commodities is expected to be maintained for the next few years.

Release Date
November 5, A. M.

THE SOYBEAN OUTLOOK FOR 1939

Summary

Total production of soybeans in the United States this year has reached a new record high of about 47 million bushels, 14 percent larger than 1937 production. Moreover, total available supplies of commodities which compete with soybeans show little reduction from last year's relatively large supplies. Farm prices of soybeans during the coming year, therefore, may average somewhat lower than those of last year, when the season average was 84 cents per bushel. At the present time (October) these prices are around 20 cents per bushel lower than last year.

The price outlook for soybeans is largely dependent on the outlook for soybean oil and meal, and the prices of these products are expected to average slightly below the relatively low prices of last year. Improving demand conditions may tend to strengthen markets for soybeans and soybean products, but the influence of this favorable factor is not likely to be felt to any great extent until after most of the 1938 soybean crop has been marketed by farmers.

The outlook in the last part of 1939 will depend on the production of soybeans and competing products in that year, and on general demand conditions prevailing at that time. Insofar as the various factors can be evaluated, it seems probable that demand for soybeans late in 1939 will be somewhat better than during the current marketing season. Consequently, if there is no marked increase in production next year, farm prices of soybeans may show a rise from their present relatively low level.

Acreage and Production

The 6,743,000 acres of soybeans grown alone for all purposes in the United States this year are a record high, 10 percent above the corresponding acreage last year, and slightly more than the previous peak level reached in 1935. About half the increase over last year has occurred in the North Central States, which produce most of the soybeans sold for crushing. The other half of the increase is chiefly in the Southern States where acreage is largely for hay or forage.

Based on October 1 conditions, estimated production in the six important commercial-producing States - Ohio, Indiana, Illinois, Iowa, Missouri, and North Carolina - is 43,684,000 bushels. An estimate of 1938 production in other States will not be available until the November Crop Report is released, but it will probably be 3 million bushels or more, making total 1938 production in the United States approximately 47 million bushels. This is almost 3 million bushels more than the previous record large crop produced in 1935.

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Commercial Supply

Although the quantity of soybeans used for feed or for seed changes from year to year, it has not changed nearly as much as production. Consequently, with larger production in recent years, increasing percentages of the crop have been entering commercial channels. Of the 1935 crop, 29 million bushels, or 65 percent of production, were either crushed or exported. Of the 1936 crop, 21 million bushels, or 69 percent of production, were crushed or exported. And the quantity entering commercial channels during the 1937-38 marketing season was approximately 30 million bushels, 73 percent of the 1937 production. The annual quantities apparently used for feed or seed have varied in the last 8 years between 9 and 15 million bushels. Of the estimated 1938 production of 47 million bushels, therefore, from 32 to 33 million bushels may be available for commercial uses, with about 35 million the most likely figure. What part of this commercial supply will be crushed domestically cannot be estimated accurately at the present time. But domestic crushings of soybeans in the 1938-39 marketing season will undoubtedly be larger than the 29 million bushels crushed from the 1937 crop; and if exports continue small as expected, domestic crushings may be as large as 34 million bushels.

Elements in the Outlook

The outlook for soybeans in commercial channels, however, depends less on the supply of soybeans available for crushing than on supplies of competing products, the most important of which are cottonseed, flaxseed, and lard. Prices paid to growers for soybeans harvested for crushing depend largely on the prevailing prices of soybean meal and soybean oil, which in turn depend on general supply and demand conditions in their respective fields. Consequently, the feed outlook and the fats and oils outlook are the important elements in the outlook for soybeans. The general demand situation will be an important factor, but its influence will be felt through its effect on the markets for feeds and for fats and oils.

The Feed Situation

Soybean cake or meal is used largely as a livestock feed, competing with other high-protein feeds, the most important of which are cottonseed and linseed meals. Prices of soybean meal, therefore, are dependent on total supplies of protein concentrates relative to demand. Because of drought conditions, with reduced production of soybean meal and relatively low supplies of other feedstuffs, prices of soybean meal during the 1936-37 marketing season were rather high, averaging more than \$40 per ton at Chicago. Because of the unusually large production of cottonseed meal, together with increased production of soybean meal, lower prices prevailed in 1937-38, the range for soybean meal at Chicago being \$25-30 per ton.

Total supplies of high-protein feeds available for domestic utilization during 1938-39 are expected to be somewhat smaller than last year, but larger than in any other recent year. Production of cottonseed cake and meal will be much smaller than last year, probably around 1.9 million tons for the 1938

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cottonseed crop, compared with 2.8 million tons produced last year. On the other hand, increases in the production of most other protein concentrates are expected. Production of soybean cake and meal may reach a new record high level of 900,000 tons compared with approximately 680,000 tons last year. Small increases are indicated in the production of linseed cake and meal from domestic flaxseed, and in the production of other byproduct feeds. Another factor tending to increase available supplies this year is the larger carry-over of cottonseed and of cottonseed cake and meal. August 1 stocks of cottonseed cake and meal, together with the cake and meal equivalent of stocks of cottonseed, totaled 368,000 tons compared with only 53,000 tons at that time last year.

Although all these factors tending to increase available supplies for 1938-39 will be more than offset by the expected large decrease in the production of cottonseed cake and meal from the current cottonseed crop, nevertheless supplies of protein concentrates and of feedstuffs in general will still be plentiful. With a record large production of soybean cake and meal expected, prices during the coming year will probably average a little lower than last year.

The Fats and Oils Situation

Since food products account for about four-fifths of the total factory consumption of soybean oil, the outlook for soybean oil will be similar to the general outlook for edible oils. Total domestic production of edible vegetable oils will be smaller in 1938-39 than last year. Production of cottonseed oil will probably be between 1.3 and 1.4 billion pounds for the current crop of cottonseed, compared with almost 2 billion pounds produced last year. On the other hand, a production of 300 million pounds or more is expected for soybean oil compared with approximately 260 million pounds last year. Small increases in production of corn, peanut, and other minor edible oils may also occur. But these probable increases in production, together with an increase in carry-over of edible vegetable oils of about 300 million pounds, will not be sufficient to offset the large expected decrease in cottonseed oil production.

Another important element in the supply picture, however, is the probable expansion in the production of lard. Since soybean, cottonseed, and other edible oils are used in large quantities in the manufacture of vegetable cooking fats, which compete with lard, an increase in the production of lard may have about the same effect on the prices of these oils as an increase in the production of the oils themselves. Thus, although there are large differences in the prospective supplies of individual oils or fats, the net result of all these changes seems to be that the total available supply of all edible fats and oils, both vegetable and animal, will not be much smaller than last year's large supply.

It is not likely that the outlook for drying oils will have any appreciable influence on soybean oil prospects. During the last 3 calendar years, consumption of soybean oil in paint, varnish, and other drying-oil

products has remained practically unchanged at a level of 17 million pounds per year. There are no indications that consumption in this field will increase to any marked degree in the near future.

Prices of soybean oil averaged about 9 cents per pound during the 1936-37 marketing season. In 1937-38, with production of both cottonseed and soybean oil at record high levels, prevailing prices for soybean oil were considerably lower, averaging less than 6 cents per pound. The price of soybean oil is now slightly lower than a year ago. With a new record high production of soybean oil in prospect for the coming year, and with the total supply of edible fats and oils not greatly reduced, prices of soybean oil are expected to average about the same as, or a little below those of last year. General demand conditions are expected to improve in the next 12 months, but the effect of this improvement in strengthening the market for soybean oil is uncertain.

The Foreign Situation

Exports of soybeans from the United States in past years have been small relative to total production, and have depended on sufficiently large supplies and low prices in this country to enable American exporters to compete successfully with Manchurian soybeans in European markets. Of the production in the United States last year of 41 million bushels, only about 1.4 million bushels were exported.

Soybean production in Manchuria, which is the source of more than 90 percent of the soybeans entering international trade, has been increasing since 1934; and the latest information places this year's production at 163 million bushels compared with 156 million bushels for 1937. The carry-over of exportable beans in Manchuria is also estimated to have been a little larger than last year. At present, Manchurian prices for soybeans are about 10 percent below those of a year ago.

European demand for soybeans during 1938-39 is not likely to be any larger than last year. With Manchuria having a somewhat larger supply available for export during the new year, and with Japanese officials anxious to promote increased exports, it is unlikely that American soybean exports will be any larger than last year despite increased production in this country.

The Outlook for Soybeans

The average farm price of soybeans in the United States 2 years ago was \$1.28 per bushel. Last year the average price was \$.84 per bushel. With markets for both soybean oil and soybean meal likely to be a little weaker than last season, and with no increase expected in European demand for American soybeans, it is probable that prices paid to farmers for the 1938 soybean crop will average a little lower than last year. At the present time, they are around 20 cents per bushel lower.

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Farm prices last year averaged somewhat higher relative to the value of the oil and meal produced than was the case in earlier years. If this new relationship continues, soybean prices are still likely to be a little lower than last year because of the slightly less favorable outlook for soybean oil and meal. If, on the other hand, larger production causes a return to the old relationship between soybean prices and the value of the products of crushing, this would be an additional factor tending to depress soybean prices. Improvement in the general demand situation may have a favorable influence on the prices of soybeans and soybean products, but its effect is not likely to be very noticeable until after most of the 1938 soybean crop has been marketed by farmers.

The outlook for the last part of 1939 will depend on production in that year of cottonseed, flaxseed, lard, and other products that are competitive with soybeans and soybean products, as well as on the 1939 production of soybeans. The relatively large carry-over of some of these commodities, particularly of cottonseed and cottonseed products, which is an unfavorable factor in the outlook for the current marketing year, may be considerably reduced by the beginning of the 1939-40 marketing season. Thus, even if production of these crops is as large in 1939 as in 1938, total supplies may nevertheless be a little smaller. This will probably be offset to some extent, however, by a continued expansion of lard production.

Prospective improvement in the general demand situation will probably be reflected in a better demand for soybeans and soybean products in the last part of 1939. On the whole, therefore, prices of soybeans late in 1939 are likely to be higher than the relatively low prices expected for the 1938 crop, especially if production is smaller than 1938 production. But it probably would not take a very large increase in soybean production next year to offset the favorable elements in the price outlook.

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Acreage, yield per acre, and production of soybeans in the United States,
1924-38

Year	Total acre- age 1/	Acreage: harvest- ed for beans 1/	Yield per acre	Production: Production: 6 import- ant States:	Production: all other States	Acreage grown alone for all purposes
	1,000 acres	1,000 acres	1,000 Bushels	1,000 bushels	1,000 bushels	1,000 acres
1924	1,782	448	11.0	4,947	3,905	1,042
1925	1,785	415	11.7	4,875	3,701	1,174
1926	2,127	466	11.2	5,239	4,096	1,143
1927	2,350	568	12.2	6,938	5,560	1,378
1928	2,439	579	13.6	7,880	6,588	1,292
1929	2,736	708	13.3	9,398	7,976	1,422
1930	3,387	1,008	13.4	13,471	12,405	1,066
1931	4,194	1,104	15.2	16,733	14,988	1,745
1932	4,049	977	15.3	14,975	13,524	1,451
1933	3,777	997	13.2	13,147	11,591	1,556
1934	5,994	1,539	15.0	23,095	21,396	1,699
1935	7,111	2,697	16.5	44,378	42,357	2,021
1936	6,646	2,132	14.1	29,983	27,716	2,267
1937 3/	6,982	2,337	17.5	40,997	38,128	2,869
1938	:	:	:	4/47,000	5/43,684	4/3,000
						3/6,743

1/ Includes allowance for acreage grown with corn and other crops in States where interplanting is extensively practiced. 2/ Ohio, Indiana, Illinois, Iowa, Missouri, and North Carolina. 3/ Preliminary. 4/ Approximate. 5/ Indicated October 1.

Soybean production in specified States, average 1927-36,
annual 1937 and 1938

State	Average 1927-36	1937 1/	1938 2/	Increase
	1,000 bushels	1,000 bushels	1,000 bushels	Percent
Ohio	879	3,249	4,680	44.0
Ind.	2,671	5,797	6,462	11.5
Ill.	9,214	22,800	24,574	7.8
Iowa	1,679	4,236	5,724	35.1
Mo.	756	486	594	22.2
N. C.	1,211	1,560	1,650	5.8
Total six States.	16,410	38,128	43,684	14.6

1/ Preliminary.

2/ Indicated October 1.

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Year	Production	Crushed	Exported	Total crushed and exported	Pct.	Used for: feed or	Average price
Oct.				Amount	of pro- duction	seed	per bushel
	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	Percent	1,000 bu.	Cents
1924	4,947	307	---	307	6.2	4,640	247
1925	4,875	351	---	351	7.2	4,524	234
1926	5,239	335	---	335	6.4	4,904	200
1927	6,938	559	---	559	8.1	6,379	183
1928	7,880	882	---	882	11.2	6,998	190
1929	9,398	1,666	---	1,666	17.7	7,732	187
1930	13,471	4,069	---	4,069	30.2	9,402	132
1931	16,733	4,725	2,161	6,886	41.2	9,847	48
1932	14,975	3,470	2,450	5,920	39.5	9,055	56
1933	13,147	3,054	---	3,054	23.2	10,093	98
1934	23,095	9,105	19	9,124	39.5	13,971	101
1935	44,378	25,181	3,490	28,671	64.6	15,707	79
1936	29,983	20,619	---	20,619	68.8	9,364	128
1937	<u>4/</u> 40,997	<u>5/</u> 28,600	<u>4/</u> 1,201	<u>5/</u> 29,801	<u>5/</u> 72.7	<u>5/</u> 11,196	<u>4/</u> 84
1938	<u>5/</u> 47,000						

Production of soybean, cottonseed, and linseed oils and meals in the United States, average 1928-32, annual 1933-37

Marketing:		Oil			Cake or meal		
year	Cottonseed	Soybean	Linseed	Cottonseed	Soybean	Linseed	
1/	2/	3/	3/ 4/	2/	3/	3/ 4/	
	Mil. lb.	Mil. lb.	Mil. lb.	1,000 tons	1,000 tons	1,000 tons	
Average :							
1928-32:	1,552	25	527	2,235	71	550	
:							
1933 ...:	1,303	26	443	1,838	74	430	
1934 ...:	1,109	78	404	1,614	223	385	
1935 ...:	1,164	209	506	1,739	600	499	
1936 ...:	1,364	184	587	2,031	492	566	
1937 ...:	5/1,966	6/260	5/ 505	5/2,830	6/ 680	5/ 481	

1/ Cottonseed oil and meal, year beginning August; soybean oil and meal, year beginning October; linseed oil and meal, year beginning July. 2/ Compiled from Cotton Production and Distribution, Bureau of the Census. 3/ Compiled or computed from data in Animal and Vegetable Fats and Oils, Bureau of the Census. 4/ Includes production from imported flaxseed. Most of the cake and meal produced from imported flaxseed is reexported. 5/ Preliminary. 6/ Estimated.

Soybean Outlook

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Prices of soybeans, soybean oil, and soybean meal, specified localities,
by months, October 1935-September 1938

Year and month	Soybeans, United States farm price per bushel 1/	Soybeans, Illinois farm price per bushel 1/	Soybeans, U.S. No. 2 Yellow, price per bushel, net track Chicago 2/	Soybean oil crude, price per pound in tank car lots, mid-western mills 3/	Soybean meal, 41 percent protein, price per ton, bagged Chicago 4/
	Cents	Cents	Cents	Cents	Dollars
1935-36					
Oct.	68	60	79	3.1	25.60
Nov.	69	65	81	8.1	24.40
Dec.	72	70	87	8.1	25.50
Jan.	76	75	88	7.6	25.20
Feb.	77	75	85	7.2	23.90
Mar.	78	75	82	6.8	22.30
Apr.	78	75	83	6.8	23.30
May	83	80	85	6.3	24.80
June	85	80	91	6.0	26.10
July	105	100	122	7.9	38.90
Aug.	119	115	142	8.0	44.30
Sept.	110	105	127	8.2	39.70
1936-37					
Oct.	107	105	123	8.0	36.90
Nov.	112	110	129	8.0	39.20
Dec.	130	130	146	9.1	43.00
Jan.	142	140	161	9.8	44.10
Feb.	150	150	159	9.9	41.50
Mar.	152	145	159	9.8	41.10
Apr.	166	160	174	9.8	47.60
May	174	170	175	9.0	48.30
June	150	140	140	8.2	39.20
July	132	120	139	7.8	37.30
Aug.	102	90	112	6.5	34.90
Sept.	90	80	98	6.2	34.20
1937-38					
Oct.	86	80	98	5.8	28.80
Nov.	83	80	93	5.6	29.50
Dec.	83	80	95	5.2	28.80
Jan.	88	85	100	5.8	30.00
Feb.	93	90	104	6.1	29.60
Mar.	89	85	98	6.4	28.10
Apr.	85	80	92	5.9	26.00
May	87	80	91	5.7	26.30
June	86	80	88	5.2	25.30
July	85	80	92	5.9	26.95
Aug.	75	70	86	5.7	26.15
Sept.	71	65	84	5.2	26.95

1/ Weighted average price on the 15th of each month. 2/ Compiled from Chicago Daily Trade Bulletin; prices "track country points" converted to "net track Chicago" by adding average freight from Illinois-Indiana points to Chicago; average of weekly prices. 3/ Compiled from Oil, Paint, and Drug Reporter; average of Friday quotations. 4/ Published in Crops and Markets, U.S. Dept. of Agriculture; average of weekly prices.

Release Date
November 1, A. M.

THE FLAXSEED OUTLOOK FOR 1939

Summary

The outlook for flax in the United States in 1939 is for higher per-acre returns from flax than from spring wheat, assuming at least average yields of these grains next season. World supplies of flaxseed for 1938-39 will be but little larger than in 1937-38 whereas world wheat supplies are the largest on record. The United States flax acreage in 1939 probably will be somewhat larger than in 1938 if flaxseed prices continue high relative to wheat prices and if the proposed reduction in wheat acreage in the Agricultural Conservation Program takes place. Domestic demand for flaxseed and flaxseed products from present indications will be somewhat better during 1939 than in 1938. Little change is in prospect in the production of oils competing with linseed oil.

Flax Likely to Bring Better Returns than Wheat

Larger per-acre returns from flax than from wheat are probable for the 1938-39 season if average or better per-acre yields are obtained for these grains. A larger flax acreage may be expected in 1939 if flaxseed prices continue high relative to wheat prices. Production from the 1,144 thousand acres seeded in 1938 provided less than one-third as much flaxseed as the average crushings in the United States in the past 5 years.

World Flax Supplies Slightly Larger than in 1937-38

Slightly larger world supplies of flaxseed in 1938-39 than in 1937-38 are in prospect. United States supplies are not greatly different from those of last year with some increase in production about offset by smaller carry-over stocks of old seed. Domestic production was estimated October 1 at 7,936,000 bushels compared with 6,974,000 bushels produced in 1937. Carry-over stocks, including flaxseed in crushing plants, were the smallest since 1935. They totaled only 2,199,000 bushels, giving a total supply of 10,191,000 bushels compared with 10,313,000 a year ago and the 5-year 1931-36 average of 12,506,000 bushels.

Canadian production in 1938 was more than double that of 1937 but amounted to only 1,581,000 bushels, which together with the carry-over estimated at 219,000 bushels, gave a total supply of 1,800,000 bushels against 1,163,000 bushels for the previous season. The Indian harvest has been estimated at 18,280,000 bushels compared with 17,800,000 bushels in 1937. No official estimate is yet available for the Argentine crop which normally supplies about four-fifths of the flaxseed entering world trade.

A preliminary estimate places the acreage for 1938-39 at 6,869,000 acres, or about 2 percent below last year. With average yields this acreage would produce a crop of about 70 million bushels compared with last year's production of 62 million bushels.

With growing conditions generally favorable in Argentina and Uruguay, present indications are that the surplus available for export from these countries will be 8 to 10 million bushels over that from the 1937 crop. Shipments of Indian flaxseed to date indicate slightly larger supplies still available for export from that country than were shipped during the remainder of the season last year. Unless there is some expansion in world demand for flaxseed, world stocks of flaxseed next fall - when the 1939 United States crop is ready for marketing - will probably be somewhat larger than at the beginning of the 1938-39 season.

There is little indication at this time that world demand for flaxseed during 1939 will be materially different from that of 1938. Some improvement is expected in United States demand for flaxseed and flaxseed products as a result of further improvement in business conditions but this may be about offset by a slightly smaller demand in Europe.

Residential building in the United States increased materially during 1938 with building interests apparently devoting more attention to the relatively large market for the medium and lower priced homes. Indications point to a continued increase in residential building, which in turn should be reflected in improved demand for linseed and other drying oils. Demand for linseed meal, which is a minor factor in flaxseed returns, is likely to be well maintained during the 1938-39 season as a result of the prospective smaller total supplies of the high protein feeds. The relatively high premiums paid for linseed meal during the 1937-38 season, however, may be somewhat reduced because of the abundant supplies of feed grains.

Foreign conditions that influence the demand for flaxseed and flaxseed products are expected to be somewhat less favorable in 1939 than in 1938. Indexes of building construction show no definite trend, being down in Italy and France, up in Germany, and about steady in England. Demand for high-protein feeds in Europe probably will be somewhat less than in 1938 because of reduced numbers of livestock partly because of increased slaughtering of cattle as a result of an outbreak of foot and mouth disease.

Drying Oil Supplies Above Average

Domestic supplies of competing and supplementary drying oils, which furnished almost a third of United States drying oil requirements in the calendar year 1937, are larger than average. There are no indications, however, that production of these oils during the coming season will be materially different from last year except that soybean oil supplies probably will be larger.

Consumption of oils by the drying-oil industries in the United States increased steadily from a low point of 475 million pounds in the calendar year 1932 to 834 million pounds in 1937, but during this period the percentage of linseed oil dropped from 75 percent of the total in 1932 to 61 percent in 1936. In 1937 linseed oil contributed 68 percent of the total of drying oils used.

Tung oil has supplied from 18 to 20 percent of the total oils used by the drying industries in the United States during the last few years. At the end of June 1938 stocks were the largest ever reported at this season of the year and amounted to 54.7 million pounds. During 1937, 151 million pounds of tung oil were consumed by the drying industries. Because of military operations in China it is impossible to estimate the quantity of this oil that will be available for the coming season. It is believed that there will be some carry-over of tung oil in China to add to the new crop which normally is harvested late in the calendar year and comes to market in the early months of the following year.

Imports of perilla oil have been negligible since it became subject to an excise tax of 4-1/2 cents per pound in August 1936 and practically no perilla seed has been imported since the excise tax of 2 cents per pound became effective on the same date. In 1937, perilla oil supplied only about 5 percent of the drying oils used. The Revenue Act of 1938 reduces the import tax on perilla seed to 1.38 cents per pound. This will reduce the rate on the oil equivalent of perilla seed from about 5.4 cents to about 3.7 cents per pound and will tend to increase imports of perilla seed for crushing. Practically all of world crop of perilla seed is produced in Manchuria. Present indications are that the 1938 crop may be somewhat smaller than that of 1937 but no official estimate of production is yet available.

Fish oils and soybean oil also compete with linseed oil to a limited extent. Stocks of fish oil on June 30 amounted to 55 million pounds compared with 68 million a year earlier and 109 million pounds on June 30, 1936. No official information is available as to the production of fish oil this season but early reports are favorable. Stocks of soybean oil on hand June 30, 1938, were very large amounting to 78 million pounds compared with 48 million pounds on the same date a year ago. Total production of soybean oil for the crop year just closed will amount to about 260 million pounds, or the largest production of record. Stocks carried over into the new season are undoubtedly large and oil production from the 1938 crop of soybeans will probably exceed 1937-38 production.

Percentage consumption of fats and oils in the drying industries in the United States, 1931-37

Year	:Linseed : oil	:Tung oil:	: Perilla: : oil	:Fish oil:	:Soybean : oil	: Other	: Total
	:Percent	Percent	Percent	Percent	Percent	Percent	Percent
Average -	:						
1931-33	: 74	17	3	4	2	1	100
1934-36	: 65	18	8	5	2	2	100
1931	: 77	15	2	4	1	1	100
1932	: 75	16	2	4	2	1	100
1933	: 69	19	5	4	3	1/	100
1934	: 69	20	4	4	2	1	100
1935	: 65	18	8	5	3	1	100
1936	: 61	16	13	5	2	3	100
1937	: 68	18	5	5	2	2	100

The drying industries include paint and varnish, linoleum, oilcloth, and printing ink. During the last 6 years paint and varnish have approximated 80 percent of the total.

1/ Less than 0.5 percent.

Estimated consumption of fats and oils in the drying industries in the United States, 1931-37

Year	: Linseed: : oil 1/	: Tung oil: : 1/	: Perilla : oil 1/	: Fish oil	: Soybean: : oil	: Other : 2/	: Total
	:Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Average -	:						
1931-33	: 400	89	16	23	12	4	543
1934-36	: 451	122	63	32	16	12	696
1931	: 471	90	11	27	9	4	612
1932	: 354	74	11	20	12	3	474
1933	: 376	102	25	22	14	5	544
1934	: 409	117	24	25	13	7	595
1935	: 465	129	60	32	18	9	713
1936	: 478	121	105	40	17	19	780
1937	: 571	151	39	44	17	12	834

The drying industries include paint and varnish, linoleum, oilcloth, and printing ink. During the last 6 years paint and varnish have approximated 80 percent of the total.

1/ As drying oils are used directly as well as in factory consumption, these figures represent total domestic disappearance excluding small quantities reported by the Bureau of the Census as used in soap, shortenings, and miscellaneous products.

2/ Includes factory consumption of castor and miscellaneous oils, in 1931-33. In 1934, 3 million pounds each castor and sunflower oils, and 1 million pounds miscellaneous oils. In 1935, 4 million pounds castor oil, 2 million pounds citicica oil, and 2 million pounds miscellaneous oils. In 1936, 5 million pounds castor oil, 2 million pounds citicica oil, and 11 million pounds miscellaneous oils, probably largely hempseed. In 1937, 8 million pounds castor oil and the balance miscellaneous oils.

Flaxseed: Acreage, production, yield per acre, seed requirements, net trade, stocks, and crushings, United States, 1930-38

Year	Acreage		Seed		Average requirements		Yield		Production		Harvested		Net imports		Factory or com-		Stocks, July 1		Total	
	acres	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.
1930	4,466	21,673	5.7	1,959	7,813	2,328	433	461	3,222	27,054	32,708	31,496	1,212							
1931	3,724	11,755	4.8	1,422	13,849	1,198	802	483	2,483	23,700	28,087	28,022	65							
1932	2,691	11,511	5.8	990	6,213	1,459	901	540	2,900	17,370	20,624	20,460	164							
1933	1,812	6,904	5.1	871	17,901	854	960	286	2,100	23,006	26,905	26,390	515							
1934	1,588	5,661	5.7	1,278	15,332	1,421	646	446	2,513	20,720	23,506	24,179	673							
1935	2,392	14,520	6.9	1,369	15,388	1,464	344	373	2,181	26,544	32,089	31,244	845							
1936 3/	2,548	5,273	4.7	708	26,096	2,222	743	366	3,331	30,340	34,700	34,387	313							
1937 3/	1,302	6,974	7.5	627	17,860	2,484	630	225	3,339	25,870	28,173	28,696	523							
1938 3/	1,144	7,936	8.0			1,472	552	175	2,199											

1/ As crushings, seed for following year, and stocks at end of year.

2/ Balance unaccounted for at end of year.

3/ Preliminary.

Compiled as follows:

Acreage, production, yield per acre, and seed requirements from the Bureau of Agricultural Economics.

Trade figures from Foreign Commerce and Navigation of the United States, and June issues of the Monthly Summary of Foreign and Domestic Commerce of the United States.

Crushings from Bureau of the Census, Animal and Vegetable Fats and Oils.

Release Date
November 4, P.M.

THE PEANUT OUTLOOK FOR 1939

Summary

With relatively favorable returns in prospect from peanuts in 1938 there will be a tendency for growers to increase the acreage to be harvested for nuts in 1939.

Current prices of peanuts, largely resulting from the diversion program of the Agricultural Adjustment Administration, will probably yield relatively favorable returns this year compared with those from cotton and other competing crops.

Unless yields in 1939 are below average the quantity available for sale from the 1939 crop will be in excess of the quantity of edible peanuts that the trade can absorb at around current prices. Thus the market situation in the 1939-40 peanut-marketing season will again depend to an appreciable extent on peanut-oil prices which are influenced by supplies and by prices of cottonseed oil and lard. The combined supply of cottonseed oil and lard in 1939-40 is expected to be smaller than in 1938-39 chiefly because of prospective reductions in the stocks of cottonseed oil. These smaller supplies together with improved demand conditions will probably result in an increased outlet for peanut oil in 1939-40.

Crushing Outlet Continues Important

Peanut production has been at high levels in recent years and in 1938, according to September estimates, will be the second largest on record. The large crops produced beginning with 1934 would have brought much lower prices but for the crushing outlet. Payments for diverting peanuts to crushers have been made by the Agricultural Adjustment Administration each year beginning with the 1934 crop, except for the 1936 crop. Relatively high peanut-oil prices, and especially high peanut-meal prices made it possible for crushers to utilize large quantities of peanuts from the 1933 crop without diversion payments. Because of relatively low prices for competing oils and fats, and low prices for feed grains, returns to crushers for peanut oil and peanut meal in September 1938 were about the same as a year earlier, and were too low to permit profitable crushings at the present level of peanut prices. A measure providing for payments for the diversion of peanuts to crushers has been inaugurated for the 1938-39 season. The diversion program enables grower cooperatives to purchase farmers' stock peanuts of the various types and grades as follows:

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Virginias			Southeastern Runners			Southeastern Spanish			Southwestern Spanish		
Price:			Price:			Price:			Price:		
per :			per :			per :			per :		
Grade	Class	ton :	Grade		ton :	Grade		ton :	Grade		ton :
No. 1	A	\$70.00:	No. 1		\$57.00:	No. 1		\$65.00:	No. 1		\$63.00
" "	B	66.00:	" 2		53.00:	" 2		61.00:	" 2		59.00
" "	C	61.00:	" 3		48.00:	" 3		56.00:	" 3		54.60
No. 2	A	67.00:	-		- :	-		- :	-		-
" "	B	63.00:	-		- :	-		- :	-		-
" "	C	61.00:	-		- :	-		- :	-		-
No. 3	A	65.00:	-		- :	-		- :	-		-
" "	B	61.00:	-		- :	-		- :	-		-
" "	C	56.00:	-		- :	-		- :	-		-

The farmer cooperatives may sell either to the trade for edible peanuts or to crushers. The specified prices are materially higher than could be paid by crushers on the basis of present oil and meal prices. Sales to crushers are expected to be below purchase prices, but the cooperatives will be reimbursed for the differences.

Before the 1934-35 season, the quantity of peanuts crushed for oil was not important except during the World War period, and consisted largely of nuts unsuited for the so-called edible trade. During the last four seasons unusually large quantities of peanuts were diverted from the regular edible-nut trade and crushed for oil. In 1937-38 approximately 240,000,000 pounds of peanuts were crushed and it is probable that, with another diversion program, crushings in 1938-39 will be as large or larger.

Cottonseed oil and lard are the two most important factors in the edible fats and oil situation. In the 1938-39 peanut-marketing season, the supply of cottonseed oil is likely to be materially smaller than the large supplies of 1937-38, but the supply of lard is expected to be substantially larger than in 1937-38. The wholesale price of cottonseed oil in August 1938 averaged slightly higher than a year earlier but materially lower than the August average for the previous 3 years. The wholesale price of lard in August 1938 was the lowest for the month since 1933. For the coming season, it is probable that the demand for peanut oil will be about the same as in 1937-38.

For the 1939-40 season the supply of lard is expected to continue to increase whereas the supply of cottonseed oil may be reduced still further. Because of unsettled political conditions abroad, particularly in the Orient, imports of peanut oil by the United States, which ranged from 54,000,000 to 74,000,000 pounds in the previous 3 years, were reduced to negligible quantities in 1937-38 and has resulted in a drastic reduction of stocks of peanut oil at

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the beginning of the 1938-39 season. It is probable that the carry-over of peanut oil at the beginning of the 1939-40 season will also be small relative to that of other recent years. This situation, together with probable smaller total supplies of competing oils and fats and improved demand conditions, probably will tend to result in an increased outlet for peanuts for oil production in 1939-40.

General Situation 1938-39 Season

The acreage of peanuts harvested for nuts in 1938, according to September indications, will be 3 percent above the previous 1936 record acreage, and about 21 percent above the 1927-36 average. The estimated yield per acre in 1938 is above average. The September indicated production of 1,321,050,000 pounds is only slightly less than the record 1936 crop and 27 percent above the 1927-36 average production. Stocks of old-crop peanuts at the beginning of the 1938-39 season were relatively unimportant.

In Virginia, North Carolina, and Tennessee, where Virginia-type or large-podded nuts are principally grown, production in 1938 is estimated at about 10 percent below the 1937 record crop, but about the same as for other years since 1933.

In the southeastern States where both Runner and Spanish-type nuts are grown, production in 1938, according to September estimates, will be about 10 percent below the record 1936 crop, but about 60 percent above the 10-year average. It is expected that a considerable quantity of peanuts, especially Runners, will be crushed as a result of the diversion program.

In the southwestern States where Spanish-type peanuts are grown, the acreage in 1938, according to September estimates, was only 5 percent below the large acreage of 1935, but it was 21 percent above the 1927-36 average. But the indicated 1938 yield is above average and the indicated production of 183,675,000 pounds is about 34 percent above the 10-year average and only 7 percent below the large 1935 production. Stocks of old-crop peanuts in the Southwest were low at the beginning of the current marketing season, as has been the case in most recent years.

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Peanuts: Acreage, production, crushings, and price of peanuts, peanut oil, and peanut meal, average 1927-36, annual 1932-38

Crop season	Peanuts				Peanut oil, crude, price per pound		Peanut meal, price per ton	
	Acres	Production	Crushed	Farm price per pound	3/		4/	
	for nuts:		1/	2/				
	1,000 acres	1,000 lb.	1,000 lb.	Cents	Cents		Dollars	
Average 1927-36	1,497	1,039,469	122,485	3.4	7.4		30.89	
1932	1,707	1,041,150	65,428	1.5	4.1		19.03	
1933	1,468	967,620	45,000	2.8	4.8		27.92	
1934	1,699	1,123,040	220,280	3.3	9.3		28.08	
1935	1,725	1,302,805	240,223	3.1	9.0		24.16	
1936	1,760	1,336,600	295,199	3.7	9.2		35.69	
1937	1,653	1,291,655	5/240,370	3.2	6/7.1		6/25.06	
1938	5/1,806	5/1,321,050		7/3.4	7/7.8		7/24.07	

- 1/ In terms of peanuts in the shell, year beginning October. Bureau of the Census.
 2/ Farmers-stock peanuts, crop-year average prices, by States, weighted by production to obtain weighted averages for the United States.
 3/ Average f.o.b. price at southeastern mills, year beginning October.
 4/ Average f.o.b. price at southeastern mills for peanut meal, 45 percent protein, year beginning October.
 5/ Preliminary estimates. 6/Average Oct.1937-Aug.1938. 7/Price for Aug. 1938.

Peanuts: Acreage and production by producing areas, average 1927-36, and annual 1932-38

Crop season	Producing region					
	Virginia, North Carolina		Southeastern States		Southwestern States	
	1/		2/		3/	
	Acreage	Production	Acreage	Production	Acreage	Production
	1,000 acres	1,000 lb.	1,000 acres	1,000 lb.	1,000 acres	1,000 lb.
Average 1927-36	381	384,288	842	518,594	275	136,588
1932	408	388,090	1,003	498,185	296	154,875
1933	320	301,400	859	493,640	289	172,580
1934	394	419,350	977	597,490	328	106,200
1935	383	419,975	989	686,450	353	196,380
1936	378	408,705	1,071	801,755	311	126,140
1937	398	458,185	976	707,805	279	125,665
1938 4/	416	410,775	1,056	726,600	334	183,675

- 1/ Includes Virginia, North Carolina, and Tennessee.
 2/ Includes South Carolina, Georgia, Florida, Alabama, and Mississippi.
 3/ Includes Texas, Oklahoma, Arkansas, and Louisiana.
 4/ Preliminary estimates.

THE RICE OUTLOOK FOR 1939

Summary

Supplies of United States rice for the 1938-39 season probably will exceed last year's record supplies and again provide a large surplus over prospective domestic needs, probable shipments to insular possessions and exports. Good yields on the third largest acreage on record produced a record crop in the Southern Rice area. California production fell short of the 1937 record crop, but with a large carry-over of old rice 1938-39 supplies will exceed those of any other year.

Demand for United States rice during 1938-39 will not likely equal that of 1937-38. Domestic consumption probably will not differ greatly from that of the previous season unless purchases by governmental agencies are materially increased. There are no indications that shipments to insular possessions will exceed the relatively large movement of 1937-38. Exports will probably drop below those of the previous season since about two-thirds of the 1937-38 exports went to Cuba under special tariff concessions which are not in effect this season. Competition from Brazilian and Asiatic rices is likely to be keener in Cuba and other foreign markets as a result of increased supplies of foreign rice and war-disrupted trade in the Orient.

With somewhat smaller total utilization of American rice indicated for 1938-39, heavy stocks will again probably remain for carry-over into the 1939-40 season. The large supplies in relation to prospective demand brought about a materially lower level of prices for the 1938 crop. And, unless modified by a smaller production in 1939, the low prices will likely continue into the next crop year.

Rice acreage slightly reduced in 1938

The acreage of rice harvested in the United States in 1938 again exceeded a million acres but was slightly under the near record area harvested in 1937. The 1938 acreage totaling 1,080,000 acres was exceeded only in 1937, 1920, and 1919. Southern acreage was practically the same as in 1937 with 180,000 acres in Arkansas, 515,000 in Louisiana, and 250,000 in Texas. The California acreage was reduced about 10,000 acres and was estimated at 135,000 acres. The record production of southern rice was the result of a heavy yield of 47.3 bushels, or nearly 14 barrels per acre. The yield in California was below that of 1937 and 1936 and was estimated at 66 bushels or about 29-3/4 bags per acre.

Rice Outlook

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Table 1.- Rice acreage, United States, Southern States, and California
1924-38

Year	Acreage harvested						U. S. :(4 States)
	Ark.	La.	Tex.	Southern States	Calif.		
	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres
1924	166	430	151	747	90		837
1925	176	414	156	746	103		849
1926	196	492	169	857	149		1,006
1927	179	520	165	864	160		1,024
1928	173	495	162	830	132		962
1929	156	465	144	765	95		860
1930	173	491	192	856	110		966
1931	177	458	205	840	125		965
1932	163	415	186	764	110		874
1933	147	395	148	690	108		798
1934	141	415	148	704	108		812
1935	138	412	167	717	99		816
1936	160	479	204	843	126		969
1937	173	525	250	948	145		1,093
1938	180	515	250	945	135		1,080

Southern rice supplies at new high level

Supplies of southern rice available for the 1938-39 season will be the largest on record. (See table 2). Stocks of old rice carried over at the first of August were about 300,000 barrels smaller than a year earlier and were equivalent to 1,116,513 barrels. This included approximately 90,000 barrels of rough rice on farms and in warehouses, 290,000 at mills, and 736,000 of milled rice at mills. Adding the crop of 12,341,000 barrels would give a total supply of 13,457,513 barrels compared with the previous record of 13,332,868 barrels last season.

Supplies of rice in California are somewhat above last season's record supplies, as a result of heavy carry-over stocks which more than offset a reduction of about 300,000 bags in the 1938 production. Stocks of old rice carried over were the largest in recent years but consisted largely of rough rice in country warehouses. Stocks of milled rice were slightly under those of last season with the greatest reduction in stocks of second heads and screenings. Adding carry-over to the harvest would give total supplies in terms of rough rice of approximately (5,006,274) bags compared with 4,998,693 bags a year earlier.

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Table 2.- Seasonal rice supplies, including carry-over and crop in terms of rough rice

: Stocks at beginning of season:						
: Rough			: Milled	: Total		
Crop	: On farms	:	:	: rough and	Crop	: Total
year	: and in	: At	: At	: milled		: supply 1/
	: country	: mills	: mills 1/	: 1/		
	: warehouses:	:	:	:		
Southern States (year beginning Aug. 1)						
	: Barrels	Barrels	Barrels	Barrels	Barrels	Barrels
1934	: 201,700	267,389	999,298	1,468,387	8,553,032	10,021,419
1935	: 39,583	51,384	331,816	422,783	8,903,333	9,326,116
1936	: 143,766	71,369	271,010	486,145	11,232,222	11,718,367
1937	: 157,900	199,354	1,071,726	1,428,980	11,903,888	13,332,868
1938	: 89,666	290,107	736,740	1,116,513	2/12,341,000	2/13,457,513
California (year beginning Oct. 1)						
	: Bags 100	Bags 100	Bags 100	Bags 100	Bags 100	Bags 100
	: pounds	pounds	pounds	pounds	pounds	pounds
1934	: negligible	30,082	345,711	375,793	3,715,200	4,090,993
1935	: 4,450	5,268	143,714	153,432	2,929,400	3,082,832
1936	: 415,033	69,146	66,611	550,790	3,854,700	4,405,490
1937	: 200,051	20,885	210,256	431,192	4,567,500	4,998,692
1938	: 477,390	69,474	206,910	753,774	4,252,500	5,006,274

1/ Milled rice converted to rough on the basis that one pocket milled equals one barrel rough for southern rice and 66 bags milled equals 100 bags rough for California. 2/ Preliminary.

World rice production on upward trend

World rice production appears to be continuing on an upward trend, and available information indicates that production of rice in foreign countries in 1938 will be fully equal to the large harvest of 1937. Rice production in most of the large Asiatic producing countries is expected to equal the large harvest of last year. Brazil and most of the minor South American producing countries are expected to have slightly larger crops than a year ago. In the Mediterranean countries production is expected to be about the same as last season.

Stocks of rice in the principal surplus producing countries of south-eastern Asia are reported to be about normal. Some increase in stocks, however, may occur during the next few months as a result of a decreased demand from some of the principal outlets. In Brazil stocks are about normal but in European importing countries stocks are reported to be above the very low level of a year ago.

Smaller exports,- little change in domestic utilization in prospect

Smaller exports with little change in domestic utilization and shipments to insular possessions are in prospect for the 1938-39 season. Exports during 1937-38 were the largest of recent years and totaled well over 3 million pockets, nearly two-thirds of which went to Cuba, stimulated by special tariff concessions. Since such concessions are not in effect for the 1938-39 season it appears improbable that such large quantities will be exported to Cuba from the 1938 crop as moved to that destination during 1937-38. Exports to South American countries are also likely to be smaller because of the increased supplies in Brazil, which in recent years has normally supplied the bulk of South American requirements. Export demand from Europe from present indications will continue to be limited to relatively small quantities of special types. Belgium and Greece took fair quantities of American rice during 1937-38 but exports to other countries, while larger than during the previous season, were still small.

Domestic utilization of rice during 1937-38 was the largest of recent years influenced by relatively low prices and purchases by the Federal Surplus Commodity Corporation. Disappearance of southern milled rice in the United States amounted to nearly $7\frac{1}{2}$ million pockets and of California rice about 370,000 pockets. The total is about 350,000 pockets larger than in 1936-37 and $1-1\frac{1}{4}$ million pockets larger than in 1935-36. Unless purchases by the Federal Surplus Commodity Corporation are materially larger in 1938-39 than in 1937-38 when they totaled 732,000 pockets, there is little indication of a further increase in domestic utilization of either southern or California rice.

Takings by insular possessions increased only slightly despite relatively low prices of the varieties and grades of rice usually taken by the Hawaiian and Puerto Rican trade. Present conditions suggest that the quantity likely to be taken in 1938-39 may not differ materially from the 1937-38 shipments to those Islands.

World demand for rice during the 1938-39 season may be somewhat below that of the past season. With an abundant production of feed grains in Europe this year there seems little likelihood that the use of rice for feed will be as large as a year ago. India is expected to import a smaller quantity of rice from Burma. Imports into China are likely to be smaller this season which will reduce the demand for Siam and Indo-China rice. France on account of her surplus wheat crop will probably take a smaller quantity of rice from Indo-China.

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Table 3.- Supply and distribution of milled rice

Crop year	Mill stocks	Production	Total supply	Exports 1/	Shipments to insular possessions	Disappearance within U. S.	Stocks carried over
<u>Southern States (year beginning Aug. 1)</u>							
	100 pounds	100 pounds	100 pounds	100 pounds	100 pounds	100 pounds	100 pounds
1933-34:	645,539	8,081,052	8,726,591	852,851	1,530,462	5,343,980	999,298
1934-35:	999,298	8,658,264	9,657,562	1,143,689	1,776,726	6,405,321	331,816
1935-36:	331,816	8,496,138	8,827,954	750,071	1,687,894	6,118,979	271,010
1936-37:	271,010	10,585,800	10,856,810	616,617	1,993,905	7,174,562	1,071,726
1937-38:	1,071,726	12,035,736	13,107,462	2,808,782	2,103,543	7,458,397	736,740
<u>Calif. (year beginning Oct. 1)</u>							
1933-34:	73,374	1,831,070	1,904,444	10,963	1,225,166	440,146	228,169
1934-35:	228,169	1,728,059	1,956,228	29,944	1,348,697	482,736	94,851
1935-36:	94,851	1,526,422	1,621,273	7,425	1,246,671	323,214	43,963
1936-37:	43,963	1,612,163	1,656,126	260,230	920,748	336,379	138,769
1937-38:	138,769	1,729,194	1,867,963	2/ 87,407	2/ 1,274,615	2/ 369,380	136,562

1/ Head rice only.

2/ Preliminary.

Rice Prices at Lower Levels

The 1937 southern rice crop brought considerably smaller returns to growers than the 1936 crop and early marketings from the 1938 harvest are averaging below last year's levels. Farm prices in Louisiana during 1937-38 averaged only about \$2.37 per barrel compared with about \$3.30 per barrel for the previous season. Long grains brought relatively better prices than short grains during the 1937-38 season but sharp declines early in the 1938-39 season brought prices of long grains more in line with other varieties and tended to lower the average price received by growers.

Prices of southern milled rice during 1937-38 averaged about 20 cents per 100 lower than in 1936-37. With the advent of the 1938 crop prices moved further downward and Blue Rose at New Orleans during the first 2 months of the new crop year averaged about 55 cents per 100 lower than during the corresponding months last season. Long grains were selling higher than at the corresponding date last season but much lower than during the latter part of the 1937-38 crop year. Long grains were relatively scarce last year and sold at unusually high premiums over short grains. Supplies of most long grains are reported more plentiful this season and prices have made some adjustments to lower levels.

Prices of California-Japan at San Francisco averaged about 50 cents per 100 lower during the 1937-38 marketing season than during the previous season. Extra fancy Japan sold at San Francisco at the beginning of the 1937-38 season

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at \$3.25 per 100 having dropped from about \$4.20 per 100 during the closing months of the previous season. The new price was maintained practically unchanged during the first 4 months of the marketing season and then advanced to \$3.50 per 100 and maintained at that level during the remainder of the crop year. Prices of milled rice for the 1938 crop have been established at about the same levels as prevailed early last season.

Table 4.- Average price per 100 pounds, extra fancy grades of milled rice, 1932-33 to 1937-38

Variety and market	: :1932-33:	: :1933-34:	: :1934-35:	: :1935-36:	: :1936-37:	: :1937-38:	: :1937-38:	: :1938-39:
	: :1/	: :1/	:	:	:	:	:	: :1/
	: :Dollars	: :Dollars	: :Dollars	: :Dollars	: :Dollars	: :Dollars	: :Dollars	: :Dollars
<u>New Orleans</u>	:	:	:	:	:	:	:	:
Blue Rose	2.35	3.91	3.85	4.39	4.05	3.08	3.53	2.98
Early Prolific :	2.16	3.69	3.68	4.17	3.73	2.84	3.27	2.79
Lady Wright ...:	2.40	4.00	4.28	4.42	4.01	---	---	---
Edith	2.92	4.54	5.20	4.87	4.16	---	3.93	4.43
Fortuna	3.02	4.82	5.43	5.08	4.17	4.68	3.93	4.68
Rexora	---	5.08	5.84	5.85	4.48	5.13	4.31	5.23
:	:	:	:	:	:	:	:	:
<u>San Francisco</u>	:	:	:	:	:	:	:	:
Japan	2.69	3.84	3.99	4.58	4.07	3.54	4.20	3.50
:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:

1/ August-September only.

THE DRY EDIBLE BEAN OUTLOOK FOR 1939

Summary

The 1938-39 United States supply of beans is indicated to be only slightly smaller than last year but about one-fifth larger than the average for the 5-year period, 1932-36. Although 1938 production is estimated to be approximately 10 percent less than the record large crop of 1937, carry-over stocks of beans at the beginning of the 1938-39 season are the largest on record.

Because of the relatively low prices resulting from the large supplies of 1937 and 1938 and reduced consumer incomes, it is probable that the acreage planted to beans in 1939, particularly Pea beans, will be reduced materially.

A total United States harvested acreage in 1939 about the same as that available for harvest in 1938, with a yield equal to the average for the last 5 years, would produce approximately 13,000,000 bags (100 lbs.)-- a crop about 13 percent smaller than the average for the 2 preceding seasons but about 7 percent larger than the average for the 5 years, 1932-36. Such a crop, together with a probable carry-over from the 1938-39 season approximately the same as that of a year earlier, would provide a supply of beans about 2 million bags in excess of usual disappearance. But if acreage is reduced in 1939 as expected, if yields are average, and if consumer incomes increase to higher levels, bean prices in the 1939-40 season probably will be higher than in either of the 2 preceding seasons.

General Situation

The indicated production of dry edible beans on October 1, 1938, was 14,262,000 bags. With a record carry-over estimated at approximately 2,250,000 bags, the total United States supply available for use during the 1938-39 marketing season is about 16,500,000 bags or only slightly smaller than that of a year ago but 20 percent larger than the 5-year average, 1932-36. This large supply is due not only to the record carry-over but also to the fact that though harvested acreage was slightly below that of the 1937 season, the yields per acre were much higher than average. The supply available this year exceeds average domestic disappearance by more than 4 million bags. Because of the large supply of domestic beans available in the 1937-38 season and the resulting relatively low prices received throughout the marketing season, imports were only about 18 percent of those of the preceding season.

There is no dependable measure of the actual consumption of beans in this country other than the long-time annual supply and disappearance figures which indicate the utilization of about 12 million to 13 million bags annually. In the two recent seasons of largest supply, 1935 and 1937, annual disappearance apparently exceeded 14 million bags. The large disappearance of the 1935-36 season came between 2 years of severe drought when there was an unusual demand for staple food commodities, and in the 1937-38 season the Federal Surplus Commodities Corporation purchased over 500,000 bags of beans for distribution to people on relief.

There appears to be some inclination on the part of bean growers to reduce acreage in years following seasons of relatively low prices for beans and to increase acreage in years following seasons of relatively high prices for beans. The apparent persistent tendency to increase planted acreage in recent years, however, indicates that dry beans, as a whole, have had a comparative advantage in price or net return per acre over other crops that compete for the land on which beans are grown. The almost steady increase in the United States average annual yield per acre has been an important factor contributing to the increase in the trend of the United States production of beans.

Nevertheless, the United States acreage of beans probably will be decreased in 1939, primarily because of the low prices resulting from the two preceding large crops and large carry-over of stocks. The total acreage of dry edible beans for harvest in 1938 is 1,691,000 acres or less than 2 percent smaller than was actually harvested in 1937 but more than 4 percent larger than the average acreage harvested during the period, 1932-36. With yields equal to the 5-year (1932-36) average, the 1938 acreage would have produced nearly 13 million bags, which with the large carry-over from the 1937-38 season would have been more than sufficient to provide for usual disappearance.

The United States average farm price of beans during the 1937 crop-marketing season was \$3.05 per 100 pounds, which compares with a price of \$5.38 for the 1936 crop, and a 5-year average of \$3.32. During the 1937-38 season, prices ranged from a high of \$3.52 in September 1937, to a low of \$2.77 in November 1937.

Imports of dry beans for consumption during the 1937-38 crop-marketing season totaled 106,000 bags as compared with 586,000 bags the previous season and 277,000 bags for the period 1932-36. Exports to foreign countries during the last season amounted to 88,000 bags as against 26,000 bags in the 1936-37 season and 63,000 bags in the 5-year period. Shipments to noncontiguous United States territories amounted to 384,000 bags in the 1937-38 season as compared with 323,000 bags in the 1936-37 season, and previous shipments ranging from a low of 271,000 to a high of 355,000 bags. In view of the relatively large supply and low prices of domestic beans available for the 1938-39 season, it is probable that imports will be relatively small and that exports to foreign countries and to noncontiguous United States territories will be equal to or possibly slightly greater than those of the 1937-38 season.

Pea Beans

Carry-over of Pea beans on September 1, 1938, based largely on trade estimates, was apparently the largest on record. Production of Pea beans in 1938 is indicated to be slightly larger than the 1937 crop and approximately 10 percent larger than the average for the 5-year period, 1932-36. Thus, the total supply of Pea beans for the 1938-39 season probably will exceed the average annual disappearance in recent years by about 20 percent. Inasmuch as the carry-over at the beginning of the 1939-40 season probably will be almost as large as that of 1938-39, a crop substantially smaller than that of the 1938-39 season should meet all normal requirements. Such a crop would require, with average yields, an acreage about 15 percent smaller than that available for harvest in 1938. Owing to the relatively low prices resulting from the large supplies and reduced consumer incomes in the 2 preceding years, 1937 and 1938, a decrease in acreage planted to Pea beans in 1939 is probable.

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Great Northern Beans

Stocks of Great Northern beans in producing sections on September 1, 1938, apparently were the second largest to date. However, production in 1938 is indicated to be approximately one-fourth smaller than in 1937 but about one-fifth larger than the average for the 5-year period, 1932-36. The total supply for the current marketing season is therefore approximately equal to that of last season, and about 40 percent above the average annual disappearance for the 5-year period, 1932-36. The carry-over of Great Northern beans at the beginning of the 1939-40 season, consequently, should be only slightly smaller than that of a year earlier. Because of the relatively low prices in the 1937 and 1938 seasons, mainly due to large bean supplies and reduced consumer incomes, a further slight reduction in the planted acreage of Great Northern beans may be expected in 1939. In view of the large carry-over in prospect, an acreage in 1939 slightly smaller than the 1938 acreage, with average yields, would produce a supply of Great Northern beans approximately equal to average annual disappearance.

Pinto Beans

Acreage, yield, and production in Colorado, the principal Pinto bean-producing State, are indicated to be increased in 1938 above those of the preceding year, whereas all three factors were indicated to be decreased from last year in New Mexico, the second most important Pinto-growing State. However, 1938 production of Pinto beans in California is indicated to be the second largest on record.

The net result is an indicated slight increase in the 1938 production of all Pinto beans over that of the 1937-38 season, and a production slightly larger than the 5-year average. With the relatively small carry-over at the beginning of the 1938-39 season, the total supply of Pinto beans is only a little larger than the average. If disappearance in the 1938-39 season approximates the average, carry-over stocks at the end of the season probably will be slightly larger than usual and a crop in 1939 slightly smaller than that indicated for 1938 would be needed. Such a crop could be produced, with average yields, on an acreage for harvest about equal to that of 1938. Prices of Pinto beans, in relation to most other varieties, held up comparatively well during last season. Hence, it is not likely that planted acreage in the Pinto bean area will be decreased in 1939 below that of 1938.

Lima Beans

The 1938 production of all Lima beans in California is indicated to be 2,050,000 bags, compared with 2,561,000 in 1937 and an average of 1,613,000 bags for 1932-36. Supplies of Standard Lima beans are estimated at 1,372,000 bags or approximately 100,000 bags smaller than last year but about 300,000 bags larger than the previous 5-year average. Although carry-over of Standard Lima beans on September 1, 1938 was 147,000 bags as compared to 60,000 bags a year earlier, Standard Lima supplies are only about 40,000 bags larger than the 1937-38 disappearance.

Baby Lima supplies in the 1938-39 season, however, because of the record large carry-over of 311,000 bags from the 1937-38 season which almost offset the substantial decrease in 1938 production from that of 1937, are over 60 percent

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greater than the 5-year average. Disappearance of this variety has been gaining steadily in recent years but prospective supplies are about 160,000 bags more than last season's record disappearance. Hence, carry-over of Baby Lima stocks at the beginning of the 1939-40 season probably will be somewhat smaller than those of a year earlier, but still be relatively large. In view of the continued comparatively large Baby Lima supply, a further small reduction in acreage planted to them may be expected in 1939. But the upward trends in both production and yields of Baby Limas indicate that this variety may have had a comparative advantage in net return per acre over other crops that compete for the land on which Baby Lima beans are grown.

Dry edible beans: Acreage and production, average 1932-36,
annual 1934-38

State	:Average : :1932-36 :	1934	: 1935	: 1936	: 1937	: 1938
	1,000	1,000	1,000	1,000	1,000	1,000
	<u>acres</u>	<u>acres</u>	<u>acres</u>	<u>acres</u>	<u>acres</u>	<u>acres</u>
Acreage:						
Me., Vt., N.Y., Mich.,						
Wis., Minn. /1	720	803	736	624	662	686
Nebr., Mont., Idaho,						
Wyo., Oreg. /2	165	151	195	171	46	194
Kans., Colo., N. Mex.,						
Ariz. /3	438	207	615	452	427	462
Calif. /4	297	299	339	347	386	349
Total	1,620	1,460	1,885	1,594	1,721	1,691
	1,000	1,000	1,000	1,000	1,000	1,000
	<u>bags</u>	<u>bags</u>	<u>bags</u>	<u>bags</u>	<u>bags</u>	<u>bags</u>
Production:						
Me., Vt., N.Y., Mich.,						
Wis., Minn. /1	5,388	5,494	6,365	3,612	5,948	6,156
Nebr., Mont., Idaho,						
Wyo., Oreg. /2	1,916	1,729	2,097	2,127	3,091	2,357
Kans., Colo., N. Mex.,						
Ariz. /3	1,327	479	1,896	1,585	1,431	1,571
Calif. /4	3,547	3,684	3,965	4,081	5,369	4,178
Total	12,178	11,386	14,323	11,405	15,839	14,262

- /1. Largely Pea beans, but most important source of supply of Red Kidney, Yelloweye, and Cranberry.
- /2. Largely Great Northern, but Idaho most important source of supply of Small Red.
- /3. Largely Pinto.
- /4. Miscellaneous varieties - mostly Lima, Baby Lima, Blackeye, Small White, and Pink.

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Dry edible beans: Supply and disposition, average 1932-33 to 1936-37, annual 1934-35 to 1938-39

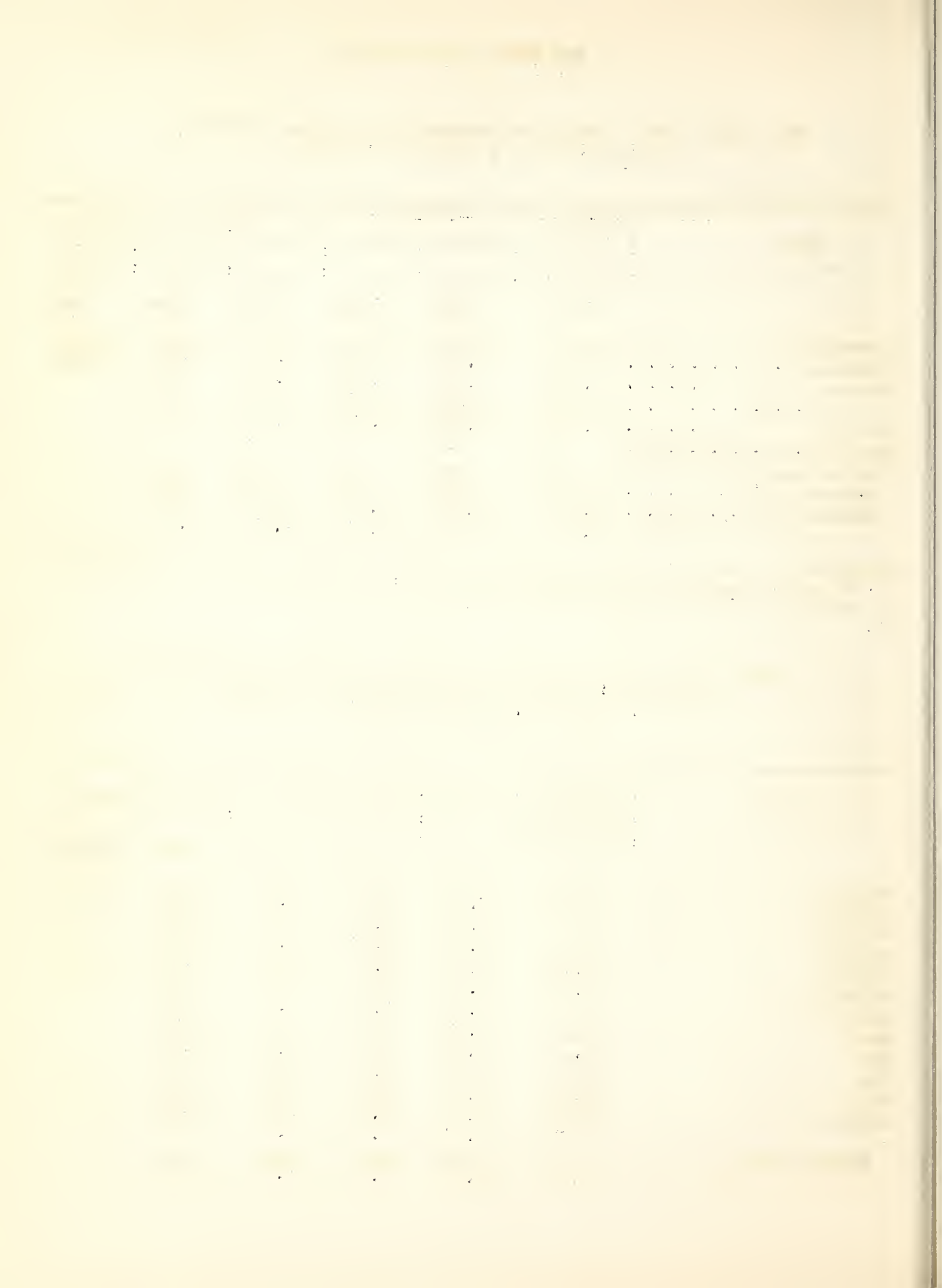
Item	: Average : : 1932-33 : : to 1936-37:	: 1934-35 : : 1,000 bags	: 1935-36 : : 1,000 bags	: 1936-37 : : 1,000 bags	: 1937-38 : : 1,000 bags	: 1938-39 : : 1,000 bags
Production	12,179	11,393	14,323	11,405	15,839	14,262
Carry-over <u>/1</u>	1,412	2,000	1,150	1,120	850	2,250
Imports	277	389	152	587	106	
Total supply	13,868	13,782	15,625	13,112	16,795	
Exports	63	55	87	26	88	
Shipments to noncontiguous U. S. territories	337	271	355	323	384	
Carry-over <u>/2</u>	1,260	1,150	1,120	850	2,250	
Domestic disappearance .	12,208	12,306	14,063	11,913	14,073	

/1. Stocks in warehouses and elevators in main producing sections at beginning of crop marketing season September 1.

/2. Stocks at end of season.

Dry edible beans: Average price per 100 pounds received by farmers, by months, average 1932-33 to 1936-37, annual 1934-35 to 1938-39

Month	: Average : : 1932-33 : : to 1936-37:	: 1934-35 : : dollars	: 1935-36 : : dollars	: 1936-37 : : dollars	: 1937-38 : : dollars	: 1938-39 : : dollars
September	3.32	3.83	3.08	4.35	3.52	2.68
October	3.22	3.83	2.89	4.83	3.37	
November	3.21	3.56	2.67	5.30	2.77	
December	3.11	3.43	2.44	5.49	2.88	
January	3.25	3.51	2.61	5.87	3.02	
February	3.42	3.50	2.85	6.43	2.97	
March	3.44	3.62	2.86	6.32	2.92	
April	3.50	3.63	3.00	6.10	2.84	
May	3.60	3.62	3.02	5.85	2.93	
June	3.54	3.54	2.96	5.66	3.00	
July	3.68	3.41	3.76	5.35	3.30	
August	3.72	3.26	4.33	4.46	2.94	
Weighted Aver.	3.32	3.52	2.93	5.38	3.05	



THE CLOVER SEED AND ALFALFA SEED OUTLOOK FOR 1939

Summary

Supplies of red and alsike clover seed are very much larger than in the fall of 1937, but are below average. Because prices of these seeds are very much lower than in 1937, sales are expected to increase considerably. Supplies of sweetclover seed are somewhat larger than in the fall of 1937, but supplies of alfalfa are smaller. Prices of sweetclover seed are much lower than last year and somewhat lower than the 5-year (1932-36) average. Prices of alfalfa seed are much lower than last year, but higher than the average. Current acreage of the clovers appears fully adequate for seed production in 1939, but acreage of alfalfa for seed in northern seed-producing districts might well be increased.

General Situation

Near-record prices of red and alsike clover seed in the spring of 1938 and abundant hay crops were the principal incentives to save as much of the acreage for seed as possible. Accordingly the acreage of these clovers harvested for seed in 1938 was very much larger than in 1937, while the acreage of sweetclover was only somewhat larger and that of alfalfa was smaller than in 1937. In general, yields per acre of these seeds, excluding alfalfa, were above those of 1937 but were below the average chiefly because of unfavorable weather for setting of seed and because of insect damage.

Prices of these seeds are very much lower than in the fall of 1937 and, except for alfalfa, the prices are lower than the 5-year (1932-36) average. The below-average prices of red clover, alsike clover, and sweetclover seed are expected to stimulate sales of these seeds in the spring of 1939. Furthermore, the agricultural conservation program will again encourage substantially the planting of clovers, alfalfa, and other legumes. Because of this and the fact that alfalfa-seed supplies are below normal, the prices paid to growers for red clover seed have been rising above the low levels noted shortly after harvest.

Acreage and condition of clover meadows at the end of the summer, together with an abundant supply of hay, indicate that a rather large acreage of clover will be available for seed production in the summer of 1939. Therefore, unless widespread killing of clovers occurs during the winter of 1938-39, or a severe drought occurs in the spring of 1939, the present acreage of the clovers for seed production in 1939 appears to be ample. Producers of alfalfa seed in northern and central producing districts may find it advantageous to increase the acreage of alfalfa for seed production.

Red-Clover Seed Crop Increases but is below Average

Production of red-clover seed in 1938, estimated at approximately 50 million pounds, is about 80 percent larger than the very small crop of 1937, but slightly below the 5-year (1932-36) average and about 20 percent below the 10-year (1927-36) average. The increase over the 1937 crop is attributed chiefly to the large increases in the acreage in the North Central States which off-

set disappointing yields in a number of States.

Carry-over of red-clover seed, both domestic and imported, is very small and much below the average. Imports of red-clover seed for the fiscal year 1938, amounting to 8,531,700 pounds, were next to the largest in the last 11 years. The quantity that remained at the close of the spring, however, was very small, in sharp contrast with the rather large carry-over of imported seed a year earlier.

About October 15, 1938 growers of red-clover seed were offered on an average \$12.50 per 100 pounds, basis clean seed, compared with \$30.10 in 1937 and \$14.55, the 5-year (1932-36) average for corresponding dates. The 1938 prices are the lowest since 1933.

Alsike-Clover Seed Crop Close to a Record

The 1938 production of alsike-clover seed, estimated at about 30 million pounds, is next to the largest production on record. It is about 60 percent larger than in 1937 and about one-third larger than the 5-year average. Practically all the important producing States showed marked increases in the 1938 acreage over that of 1937.

Carry-over of alsike-clover seed is unusually small because of the very small crop in 1937 and the below-average imports.

Prices to growers for alsike-clover seed on October 1, 1938 averaged \$10.10 per 100 pounds, basis clean seed, compared with \$26.40 last year and \$14.75, the 5-year average. The prices this fall are the lowest growers have received since the fall of 1932.

Sweetclover-Seed Crop about Same as in 1937

Production of sweetclover seed in 1938 is problematic because it is not known whether the increased acreage available for seed offset the decreased yield. The crop may turn out smaller than that of 1937, when approximately 57,200,000 pounds were produced. The 5-year average is 41,637,600 pounds.

Carry-over of this seed is about average, or above. Sales during the spring of 1938 were rather disappointing. Dealers had thought that sweetclover seed would be sown in many sections instead of high-priced red-clover and alfalfa seed. Apparently these expected sales greatly influenced dealers to import the largest quantity of sweetclover seed on record.

Prices to growers for sweetclover seed about October 15, 1938 averaged about \$3.90 per 100 pounds, basis clean seed, compared with \$7.40 last year and \$4.40, the 5-year average. Prices this year are the lowest received by growers since 1935.

Alfalfa Seed of Northern Origins Again Short

Production of alfalfa seed in 1938, estimated at approximately 46,600,000 pounds, is about 17 percent below that of 1937 and the same percentage below the

Clover and Alfalfa Seed Outlook

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5-year (1932-36) average. The crop is much smaller than average in the northern seed-producing States. Yield per acre is one of the lowest yields on record. Dry weather and grasshoppers cut down the acreage and yield of seed in a number of States west of the Mississippi River. In some States east of the Mississippi and in a few Far Western States, too much rainfall, particularly when the seed was setting, was the principal cause of the low yields in those States.

Carry-over of alfalfa seed is small, but exceeds somewhat the quantity that was expected to be carried over because sales were below expectations. Most of the carry-over is Southwestern and Canadian seed. Imports during the fiscal year 1938 were the largest in 11 years.

Prices to growers for common alfalfa seed about October 5, 1938 averaged \$16 per 100 pounds, compared with \$24.25 in 1937 and \$12.65, the 5-year average.



THE OUTLOOK FOR POTATOES FOR 1939

Release Date
Nov. 8, A.M.

Summary

The acreage planted to potatoes in 1939 is expected to be less than in 1938. With average yields on this smaller acreage, production of potatoes in 1939 would total about 310,000,000 bushels. A crop of this size would be nearly 63,000,000 bushels less than is estimated for 1938 (October 1) and about 60,000,000 bushels less than the 10-year 1927-36 average. Should yields equal about 124 bushels per acre - the average of the past two seasons, 1937 and 1938 - the 1939 crop would approximate 350,000,000 bushels, but with yields as low as in 1933 the crop would total only about 280,000,000 bushels.

It is probable that the greatest reduction in the acreage planted in 1939 will occur in the late States although it is indicated that all areas will show some decrease from the 1938 plantings. These reductions are expected to result from the relatively low prices that producers are receiving for the 1938 crop and the low prices received for the 1937 crop.

If present prospects for a smaller production of potatoes and improved consumer purchasing power in 1939 materialize, both prices and income received by growers for the United States as a whole from potatoes should be materially higher than in other recent years.

Indicated Production in 1938

The United States production of potatoes in 1938 is estimated at 373,000,000 bushels or only 5 percent less than in 1937. As yields per acre are expected to average only slightly less than the relatively high yields of 1937, nearly all of the reduction in the crop this season is due to a decrease of 4 percent in the acreage for harvest.

In the late States (excluding the early crop in California) the October 1 condition indicated a crop of 289,000,000 bushels or about 6 percent less than in 1937 and 3 percent less than the 1927-36 average. Indications are for a crop in the 8 Eastern late States about 10 percent smaller than last year. In the 10 Central late States the harvest is indicated to be about 3 percent larger while in the 12 Western late States 14 percent smaller than in 1937. In the 7 intermediate States, the total crop is estimated to be 37,467,000 bushels or slightly larger than last year and the average. The total crop in the 11 early States is estimated at 37,900,000 bushels or about the same as in 1937 but about 20 percent greater than the 1927-36 average.

Relatively low consumer purchasing power in 1938 has caused potato prices to remain at low levels. On September 15 the United States farm prices of potatoes averaged about 48 cents per bushel, compared with 54 cents a year earlier and \$1.14 in mid-September 1936.

Probable Production in 1939 Sharply Reduced

On the basis of an analysis of the relationship existing between annual changes in the United States potato acreage and adjusted prices the preceding year and the second year preceding, the acreage planted to potatoes in 1939 is expected to be about 8 percent less than that planted in 1938. The influence of two successive seasons of low prices is expected to cause potato growers to decrease their plantings sharply and may result in a total acreage in 1939 as low as 2,810,000 acres or about as small as that harvested in 1925 and 1926.

If average yields are obtained, this small acreage would result in a total United States potato crop of about 310,000,000 bushels or about 63,000,000 bushels less than in 1938 (October 1 indications) and 60,000,000 bushels less than the average crop. It would be the smallest crop since 1925. If yields are about equal to the relatively high averages of the past two seasons, production would total about 350,000,000 bushels, but with yields as low as in 1933, only about 280,000,000 bushels would be produced. It is indicated, therefore, that within the possible range of average yields per acre, the 1939 United States potato crop is likely to be relatively small.

Since the demand for potatoes is relatively inelastic (that is, under similar demand conditions, small crops usually result in larger returns to growers than do large crops), it is probable that a smaller potato crop in 1939 will result in higher prices and larger incomes to producers than were received from the relatively large crops of the past two seasons. The expected improvement in the purchasing power of consumers also points to this result.

Outlook by Regions

A study of the influences causing growers in the southern early States to vary the acreage planted to potatoes from year to year indicates that the acreage planted for harvest in 1939 will be decreased only slightly from that planted in 1938. Prices received for the 1938 commercial crop were relatively low and the prospects are that the early 1939 crop will meet severe competition from the stored portions of the 1938 late crop. In the non-commercial areas in these States the decrease in acreage is not likely to be as great as in the commercial areas.

In the intermediate States, the total acreage planted to potatoes in 1939 is likely to be decreased about 5 percent with the commercial sections showing greater decreases than the non-commercial areas. Prices received for the commercial crop in 1938 were relatively low and are likely to discourage growers in these areas.

The relatively low prices being received for the 1938 late crop of potatoes together with the low prices received for the 1937 crop will have a tendency to cause growers in the late northern States to decrease plantings to potatoes in 1939. If past relationship between prices and acreage changes continues to prevail, the acreage for harvest in 1939 in these States will be about 10 percent smaller than in 1938.

Potatoes: Acreage, yield per acre, and production, average 1927-36, annual 1937, and indicated 1938

Group of States and classification	Acreage		Yield per acre		Production	
	Average : 1927-36 : 1,000 acres	Prelim. : 1938 : 1,000 acres	Average : 1927-36 : Bushels	1937 : Bushels	Average : 1927-36 : bushels	Indicated : 1938 : bushels
Early:						
Total.....	392.4	455.0	80.6	84.5	31,697	38,442
Commercial.....	150.6	183.6	105.7	111.1	15,915	20,390
Other.....	241.8	271.4	65.3	66.5	15,782	18,052
Intermediate:						
Total.....	330.7	313.0	107.8	116.6	35,816	36,509
Commercial.....	137.1	130.8	151.4	153.7	20,756	20,101
Other.....	193.6	182.2	77.8	90.1	15,060	16,408
18 surplus late:						
Total.....	2,199.3	2,032.2	119.3	138.4	262,360	281,237
3 Eastern.....	617.5	601.0	158.4	169.9	97,933	102,093
5 Central.....	1,062.0	907.0	82.4	93.5	87,905	84,766
10 Western.....	519.8	524.2	147.9	180.0	76,521	94,378
12 other late:						
Total.....	420.6	376.7	94.8	98.5	39,820	37,101
5 Eastern.....	59.3	64.7	139.5	149.2	8,287	9,655
5 Central.....	353.6	304.0	87.7	88.3	30,951	26,854
2 Western.....	7.7	8.0	75.6	74.0	581	592
30 Late.....	2,619.95	2,408.9	115.4	132.2	302,179	318,333
37 late&inter.	2,950.65	2,721.9	114.6	130.4	337,996	354,847
U. S. total.....	3,343.05	3,176.9	110.6	123.8	369,693	393,289
30 late States:						
8 Eastern.....	676.8	665.7	156.9	167.9	106,220	111,748
10 Central.....	1,415.6	1,211.0	84.0	92.2	118,856	111,620
12 Western 1/.....	512.3	501.2	144.8	170.6	74,172	85,515
Total 1/.....	2,604.7	2,377.9	114.9	129.9	299,249	308,883
Calif. early:	15.2	31.0	191.0	305.0	2,930	9,455

1/ Excludes California early.

Potatoes: Season average price per bushel received by producers,
average 1928-32, and annual 1935-38

Group	Av. 1928-32:	1935	1936	1937	1938	1/
	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	
<u>FARM PRICE per bushel:</u>						
Early:						
Total.....	1.02	.69	1.44	.81	.74	
Commercial.....	1.03	.70	1.46	.80	.68	
Other.....	1.01	.69	1.42	.82	--	
Intermediate:						
Total.....	.80	.54	1.21	.59	.53	
Commercial.....	.72	.40	1.20	.51	.48	
Other.....	.91	.69	1.22	.70	--	
18 Surplus late States...	.63	.58	1.08	.45	.41	
12 Other late States.....	.89	.69	1.27	.75	.60	
30 Late States combined...	.66	.59	1.10	.49	.44	
37 Late & Intermediate...	.68	.59	1.11	.50	.45	
United States average..	.71	.60	1.14	.53	.48	

1/ September 15 averages except commercial early and intermediates which are season averages.

Release Date
November 8, A. M.

THE SWEETPOTATO OUTLOOK FOR 1939

Summary

The acreage of sweetpotatoes in 1939 is expected to be about the same as the 1938 harvested acreage -- 891,000 acres. With average yields, this would indicate a crop of about 77 million bushels, or about the same as the 1938 indicated production (October 1).

The 1938 Crop

The sweetpotato acreage in 1938 was increased 6 percent above the 1937 harvested acreage, or to 891,000 acres in 1938 compared with 843,000 acres in 1937. Growing conditions were generally favorable for the crop early in the season, but during August and September hot dry weather damaged the crop in many producing areas and yields as of October 1 were only slightly larger than the 1927-36 average. In Maryland heavy rains in September reduced yield prospects sharply. With an acreage considerably larger than in 1937, production as of October 1, 1938, was indicated to be only 2 percent larger than the year before -- or 77,179,000 bushels in 1938, compared with 75,393,000 bushels in 1937.

The September 15, 1938 farm price of sweetpotatoes averaged 73 cents per bushel, compared with 90 cents per bushel on the same date a year earlier. Irish potato production, which competes with sweetpotatoes, remains on a relatively high level, and demand conditions are lower than in 1937.

Regional Outlook

Most of the total sweetpotato crop is grown in the southern cotton States. In these areas, sweetpotatoes are principally used for food in the locality where grown. This acreage has varied with the returns from the previous year's cotton crop, the acreage being reduced after a year of improvement in cotton prices, and increased after a year of low cotton prices. With the price of cotton this season on about the same level as a year earlier, the acreage of sweetpotatoes in 1939 is expected to be about the same as in 1938. With average yields, this would result in a crop about the same as in 1938.

About three-fifths of the market supply of sweetpotatoes originates in New Jersey, Delaware, Maryland, Virginia, Kentucky, Tennessee, and Louisiana. Low prices received for the 1938 crop in these areas will probably result in some reduction of commercial acreage. This may not be true in Louisiana where commercial sweetpotato production is mainly of the Puerto Rican type. This type of sweetpotato has become very popular on the markets in recent years. It is expected that the upward trend of commercial production in Louisiana, as a result, will continue into 1939.

Sweetpotato Outlook

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Sweetpotatoes: Acreage, production, and price, by regions

Group	10-year average 1927-36	1937	1938
<u>A c r e a g e</u>			
	<u>Acres</u>	<u>Acres</u>	<u>Acres 1/</u>
<u>Four Central Atlantic States:</u> (N.J., Del., Md., and Va.)	66	70	66
<u>Four Lower Atlantic States:</u> (N.C., S.C., Ga., and Fla.)	271	277	294
<u>Eight South Central States:</u> (Ky., Tenn., Ala., Miss., Ark., La., Okla., and Tex)	447	455	490
<u>Other States:</u> (Ind., Ill., Ia., Mo., Kans., Cal.)	39	41	41
TOTAL UNITED STATES	823	843	891

<u>P r o d u c t i o n</u>			
	<u>1,000 bushels</u>	<u>1,000 bushels</u>	<u>1,000 2/ bushels</u>
<u>Four Central Atlantic States:</u> (N.J., Del., Md., and Va.)	8,332	9,264	7,255
<u>Four Lower Atlantic States:</u> (N. C., S.C., Ga., and Fla.)	22,362	23,205	24,500
<u>Eight South Central States:</u> (Ky., Tenn., Ala., Miss., Ark., La., Okla., and Tex.)	36,023	38,993	41,174
<u>Other States:</u> (Ind., Ill., Ia., Mo., Kans., Cal.)	3,557	3,931	4,250
TOTAL UNITED STATES	70,274	75,393	77,179

<u>P r i c e p e r b u s h e l</u>			
	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars 3/</u>
<u>Four Central Atlantic States:</u> (N.J., Del., Md., and Va.) .....	.91	.64	.75
<u>Four Lower Atlantic States:</u> (N.C., S.C., Ga., and Fla.) .....	.90	.87	.72
<u>Eight South Central States:</u> (Ky., Tenn., Ala., Miss., Ark., La., Okla., and Tex.) .....	.91	.85	.74
<u>Other States:</u> (Ind., Ill., Ia., Mo., Kans., Cal.)	1.15	1.00	.91
TOTAL UNITED STATES .....	.89	.83	.73

1/ July estimate. 2/ October 1 estimate. 3/ September 15 price.

THE OUTLOOK FOR TRUCK CROPS FOR MARKET FOR 1939

The relatively low prices received by growers of important truck crops for fresh market shipment in 1938 will probably result in a slight reduction of the total acreage and production in the United States for 1939. If production is reduced somewhat and consumer purchasing power improves as much as is now in prospect, prices and incomes received by producers of these truck crops as a class will be somewhat higher in 1939 than they were in 1938.

In 1938 the acreage and production of truck crops for market continued to expand and exceeded all previous records. Although the expansion of acreage for harvest of all truck crops combined was small, a relatively sharp increase in the yield per acre had the result of raising the total volume of production by about 5 percent. This large supply, during a period of relatively low consumer purchasing power, resulted in sharply lower prices to growers.

The discouraging price situation in 1938 will probably result in some curtailment of production in 1939. For the country as a whole smaller acreages of lima beans, beets, cabbage, celery, cucumbers, onions, and tomatoes are expected in 1939. On the other hand, some increase in the acreage of asparagus, snap beans, cantaloups, cauliflower, lettuce, spinach, and watermelons is expected for the 1939 season. The increase in the supplies of "frozen vegetables" in 1938 will be an additional competitive factor in the first half of 1939.

Growers' prospective-plantings reports indicate substantial increases in the acreage of some of the 1938-39 fall and winter vegetables. These fall and winter crops, except asparagus, however, comprise a very small portion of the total United States acreage and production. Larger acreages of asparagus, snap beans, cabbage, cucumbers, and peppers are expected. Smaller acreages of carrots, cauliflower, celery, and kale will tend to offset these increases to some extent.

Total exports of a wide variety of truck crops, during 1938, are expected to exceed last years shipments. The export market for fresh vegetables, although a relatively small outlet for total domestic truck crop production, has been increasing steadily in recent years. The bulk of the export trade is with Canada and the revival of trade with that country has been assisted by the reduction of import duty charges and increased Canadian consumption.

Imports of Cuban and Mexican winter vegetables in 1938-39 are expected to be below last years shipments. Cuban plantings of tomatoes, which are the chief item in winter vegetable trade, are expected to be 20 percent less than last year although some increase in the early crop of tomatoes may occur. Acreage estimates for other crops are as follows: lima beans, about the same as last year; peppers, about 25 to 50 percent less; eggplant, about 30 percent less; and cucumbers, about 15 percent less.

While early plantings are not necessarily indicative of the acreage ultimately set out to Mexican winter vegetables, comparison of planting for the first week of October, this year as against the same period last year show a sharp reduction. Due to lack of capital and to certain agrarian problems, it is expected that total winter vegetable acreage may be roughly 30 percent below last year.

Truck Crops for Market Outlook

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Indexes of 17 vegetables for fresh market 1919-38 (1924-29 = 100)

Year	Acreage	Yield	Value per acre	Production	Price	Value
1919	49.2	107.5	129.1	52.9	119.5	63.9
1920	58.1	115.1	116.6	66.9	102.8	68.2
1921	58.5	104.1	118.5	60.9	114.0	69.7
1922	74.6	100.7	106.2	75.1	107.9	79.7
1923	68.9	103.2	131.1	71.1	124.8	90.9
1924	83.5	102.8	107.8	85.8	104.5	90.6
1925	88.2	104.2	110.8	91.9	106.1	98.2
1926	96.8	98.3	95.0	95.2	97.6	92.5
1927	102.5	102.5	93.3	105.1	92.1	96.2
1928	110.7	94.2	98.0	104.3	103.7	109.2
1929	118.4	99.4	95.2	117.7	96.0	113.3
1930	131.9	91.9	78.5	121.2	87.1	104.1
1931	136.2	87.7	64.4	119.5	73.8	88.2
1932	139.6	88.2	52.2	123.1	61.3	73.4
1933	130.6	85.8	54.4	112.0	65.2	71.5
1934	149.0	85.6	54.9	127.6	66.4	82.3
1935	147.1	84.9	60.5	124.9	72.0	89.5
1936	152.1	86.8	64.2	132.0	75.9	98.4
1937	151.5	89.2	69.0	135.2	77.2	105.4
1938 <u>1/</u>	152.6	92.6		141.3		

1/ Preliminary.

THE CABBAGE OUTLOOK FOR 1939

Because of relatively high yields on slightly increased acreages in all of the important commercial cabbage producing areas except the fall and early States, indications point toward a record high United States cabbage crop to be produced in 1938. The second early, intermediate, and late domestic type crops were at record high levels and the late Danish type production was indicated on October 1 to be only slightly less than the record large crop produced in 1934. These large supplies, together with the sharp decline in consumer purchasing power from the level of a year earlier, have resulted in somewhat lower prices for cabbage in all areas except the fall, early, and intermediate States. In the first two groups, supplies were less than in 1937 and in the intermediate States a long-time upward trend in demand for cabbage maintained prices on a level slightly higher than in 1937.

In the past, producers have tended to reduce the acreage planted to cabbage in years following a season of relatively low prices and to increase the acreage following a season of relatively high prices. On this basis it is indicated that plantings in 1939 may be decreased rather sharply in practically all areas except the early and intermediate States. Although prices received for the fall crop in 1938 were slightly higher than in 1937 they do not appear to be high enough to stimulate acreage expansion in 1939 and a moderate decrease from that planted in 1937 is in prospect. Early reports indicate that the fall acreage has been decreased slightly from the acreage planted a year earlier while an increase of 30 percent is indicated for the early States. Based upon average yields per acre, the smaller acreages in nearly all areas would result in a sharp reduction in cabbage supplies throughout most of 1939. The reduction in production would be even greater than the change in acreage, as yields in 1938 were unusually high. Thus the decrease in production is likely to be more than seems necessary in view of the prospects of improved demand conditions in 1939. Because of the large production of cabbage for kraut in 1938 and the prospect that some of the canned kraut will be carried over into the 1939 kraut-marketing season, it is probable that the production of cabbage for kraut will be decreased in 1939.

Outlook by Regions

Fall and early States: In spite of somewhat higher prices received for the fall crop in late 1937 and early 1938, early reports indicate that the acreage for harvest in this area in 1938 and 1939 will be slightly smaller than a year earlier. Producers of this fall cabbage have probably taken into consideration the large supply of late Danish-type cabbage being produced in the Northern States. In the early States (California, Florida, Louisiana, and Texas) the acreage for harvest in 1938 was reduced about 21 percent from 1937. Although yields were slightly higher than in 1937, production totaled 231,100 tons or 16 percent less than was produced in 1937. As a result of this smaller crop, prices to growers in 1938 averaged somewhat higher than in the previous season. These higher prices have caused growers to plan for an increase of 30 percent in the acreage for harvest in 1939, but in view of the severe market competition expected from the stored portions of

the large late Danish crop during the first quarter of 1939 it is indicated that no increase or a moderate reduction in acreage in this area would maintain early cabbage supplies in line with market demand

In the second early States (Alabama, Georgia, Mississippi, North Carolina, South Carolina, and the Norfolk and Eastern Shore sections of Virginia) a record high crop of cabbage was produced in 1938. In response to the relatively high prices received in this area for the 1937 crop, the acreage in 1938 was increased slightly and yields per acre were unusually heavy. The 1938 production of 118,600 tons was nearly 22 percent above the 1937 crop and about 40 percent above the 1927-36 average. This larger crop together with lower purchasing power of consumers compared with a year earlier resulted in prices to growers about 50 percent lower than in 1937, and probably will cause the acreage planted to cabbage in this area in 1939 to be reduced sharply from that harvested in 1938.

The production of cabbage in the intermediate States (Arkansas, Illinois, Iowa, Kentucky, Maryland, Missouri, New Jersey, New Mexico, the Long Island section of New York, southeastern Ohio, Tennessee, southwestern Virginia, and Washington) has been increasing sharply in recent years and set a new high record in 1938. Acreage for harvest in this area in 1938 was slightly larger than in 1937 and with unusually high yields, 7.1 tons per acre, production totaled 243,700 tons compared with 225,800 tons in 1937 and 166,800 tons the 10-year 1927-36 average. About 18,100 tons of this year's crop was used for kraut compared with 17,900 tons in 1937. In spite of the larger crop in 1938, prices received by growers averaged somewhat higher than a year earlier and may be expected to result in a further expansion of the cabbage acreage in this area in 1939. This is particularly true in view of the sharp upward trend that has been evident in recent years.

In the areas of the late States (Colorado, Indiana, Michigan, Minnesota, New York, Ohio, Oregon, Pennsylvania, Utah, and Wisconsin) where the domestic-type cabbage is grown, about one-half of which is used for kraut manufacture, the acreage was increased over 1937 and bumper yields per acre were obtained in 1938. As a result a record large crop of 483,700 tons was produced. It was about 69 percent larger than the 1937 crop and 58 percent larger than the average for 10 years, 1927-36. Of this large quantity about 221,000 tons is indicated to have been used for kraut manufacture as compared with the relatively small total of 129,000 tons so used in 1937. But because of this large supply of domestic-type cabbage available this season, prices to growers are indicated to be less than one-half those received for the 1937 crop and probably will cause producers of this type to reduce their plantings sharply in 1939. It is probable that the reduction will be far greater than the prospective demand conditions during the 1939 marketing season would warrant.

The production of the late Danish-type cabbage (all late States except Oregon and Utah in the list above) is indicated to total 385,300 tons or only about 5 percent less than the record large crop of 406,600 tons produced in 1934. It is about 47 percent larger than in 1937 and 30 percent larger than the 1927-36 average. The large crop in 1938 resulted from unusually high yields per acre obtained on an acreage only slightly larger than that harvested in 1937. Usually a portion of this crop is stored for the late winter market and it is indicated that the quantity going into storage this season is relatively large. Because of this large supply of both late-domestic and late-Danish cabbage this season, terminal market prices have been on a relatively low level. The low prices being received in the fall of 1938 are likely to cause producers of the Danish type to reduce acreage materially in 1939.

Cabbage Outlook

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Cabbage for market and kraut: Commercial acreage, yield per ton,
production and season average price received by farmers
by groups of States, average 1927-36, annual 1936-38

Area	10-yr. av. 1927-36	1936	1937	1938 Prel.
<u>Acreage</u>				
	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>
Fall	1,010	1,920	2,800	2,100
Early	40,210	58,800	58,200	46,200
Second early	15,760	18,300	18,600	19,200
Intermediate	28,080	32,330	34,150	34,350
Late, domestic	37,670	38,690	41,090	44,000
Late, Danish	36,650	35,340	37,090	39,080
Total late	74,320	74,030	78,180	83,080
Total all States ..	159,380	185,380	191,930	184,930
For kraut	19,160	18,980	25,040	25,000
For market	140,220	166,400	166,890	159,930
<u>Yield per acre</u>				
	<u>Short tons</u>	<u>Short tons</u>	<u>Short tons</u>	<u>Short tons</u>
Fall	6.5	4.9	7.0	6.5
Early	5.5	5.3	4.8	5.0
Second early	5.4	5.0	5.2	6.2
Intermediate	6.1	4.9	6.6	7.1
Late, domestic	8.3	6.5	7.0	11.0
Late, Danish	8.1	7.6	7.1	9.9
Total late	8.2	7.0	7.0	10.3
Total all States ..	6.85	5.90	6.09	7.98
For kraut	8.22	6.06	6.12	9.65
For market	6.67	5.89	6.08	7.72
<u>Production</u>				
	<u>Short tons</u>	<u>Short tons</u>	<u>Short tons</u>	<u>Short tons</u>
Fall	6,500	9,500	19,500	13,600
Early	219,500	1/ 313,200	1/ 276,500	231,100
Second early	84,900	1/ 92,100	97,500	1/ 118,600
Intermediate	166,800	160,000	225,800	243,700
Late, domestic	306,900	252,900	286,100	483,700
Late, Danish	297,600	266,900	262,500	385,300
Total late	604,500	519,800	548,600	869,000
Total all States ..	1,082,200	1/1,094,600	1/1,167,900	1/1,476,000
For kraut	154,700	115,100	153,200	241,200
For market	927,500	1/ 979,500	1/1,014,700	1/1,234,800
<u>Price per short ton</u>				
	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
Fall	32.19	28.11	14.21	20.74
Early	20.02	12.50	12.75	16.55
Second early	28.57	12.33	24.39	11.20
Intermediate	20.94	32.21	12.93	15.35
Late, domestic	11.25	24.95	12.57	---
Late, Danish	11.88	19.06	13.04	---
Total late	11.52	21.93	12.79	---
Total all States ..	15.59	20.37	13.82	---
For kraut	8.02	13.17	9.61	---
For market	16.94	21.26	14.25	---

1/ Includes some quantities not harvested because of market conditions.

THE CELERY OUTLOOK FOR 1939

Summary

Celery production in 1939, based on the anticipated acreage, will be less than that of 1938, by 5 to 10 percent. Consumer incomes in 1939 are expected to be moderately higher than during 1938. Both of these factors point to higher prices, and net incomes for celery growers in 1939. However, even if such improvements should materialize only those growers with average production costs or less can expect a reasonable profit.

General Characteristics of Crop

Celery is one of the most difficult and expensive of the vegetable crops to grow (per acre). Largely for this reason United States commercial production is carried on in a few highly concentrated areas, found in only 13 States. Four States have 80 percent of the production -- California, Florida, Michigan, and New York, in that order. The remaining nine States have altogether but 20 percent of the total. Few home gardeners attempt its cultivation and it is of little importance in the local truck gardens that surround every large city.

Celery is on the markets every day in the year, production and distribution being dovetailed so that all parts of the country are constantly able to receive a supply. The fall of the year, including the holiday season, is the period of heaviest consumption.

Celery is definitely a luxury or semi-luxury product. It is not established in popular use as are potatoes, cabbage, and onions. Nor even as much used as lettuce and tomatoes. In most families it is used only on special occasions. Therefore, celery prices are very sensitive to changes in the incomes of consumers. If economic conditions change rapidly, the influence of demand upon celery prices can over-shadow the influence of the supply.

Producing Areas and Seasons

The fall and winter crop supplies the first new crop celery, beginning in the fall of the year preceding the crop year designated. It is all grown in California, shipped principally from November through January, and comprises 15 percent of the total production.

Early celery is produced in Florida and California, is shipped from January through May, and is 29 percent of United States production.

The celery produced in these two groups is "off-season." It encounters higher production costs, and because it is shipped long distances to the large consuming centers, has much higher transportation charges than do other groups. Because these groups present distinct problems they are considered separately.

Celery Outlook

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The second early celery, produced in California, is 7 percent of the production. Some of this celery is shipped in June, but most of it supplies local markets in the summer.

Intermediate celery is produced in Michigan, New Jersey, New York, Ohio, and Indiana. It is the summer celery of the east, amounting to 11 percent of the United States total.

Production from the two groups of late States amount to 38 percent of United States production in eleven widely scattered States. It is harvested for the most part in September and October, but large quantities are stored for sale in November and December, competing directly with new-crop celery from California.

Intermediate and late celery is grown mostly for local or near-by sale, and is characterized by a lack of standardization as to size of package, method of pack, and method of transportation and sale.

Trends in Production and Price

Since 1918, when comprehensive records were first available, the trend of celery production, along with other vegetables, has been upward; and the trend in prices has been downward.

The trends in acreage, production, and farm price by 5-year averages, and for 1937 and 1938, are shown in the following table:

Year	Fall, winter, and early				Second early, intermediate, and late			
	Acreage	Pro- duction	Yield	Farm price	Acreage	Pro- duction	Yield	Farm price
	Acres	1,000 crates 1/	Crates per acre 1/	Dollars	Acres	1,000 crates 1/	Crates per acre 1/	Dollars
1918-22	6,606	2,014	305	2.81	8,988	2,278	254	1.60
1923-27	10,322	2,830	274	2.33	13,690	3,611	263	1.63
1928-32	14,796	3,773	255	1.96	17,826	5,395	303	1.39
1933-37	16,064	3,936	248	1.74	18,932	5,148	272	1.40
1937	20,500	4,853	237	1.91	19,640	5,443	277	1.56
1938 (Prel.)	21,150	5,285	250	1.58	21,500	6,735	313	1.28

1/ The unit used is the New York two-thirds size crate, packed in the rough, delivered to the shipping point, or equivalent.

Acreage has increased in the early areas at a faster pace than the late; until in 1938 the two were equal in area. However, the yield in late areas is greater and does not show a tendency to decline as in the early sections.

It will also be noted that prices have been much more stable in late areas. This is partially explained by the fact that production in these areas is more responsive to price changes, and that a large part of the increase has been in intermediate (summer) celery which appears to have filled a natural demand.

The principal difficulties of the industry are in the early areas where both yield and prices have declined. Indications at present point to curtailment of acreage in these areas for 1939. Yet certain factors may prevent any notable decline in celery acreage for 1939. Many growers have the equipment, land, and experience for growing celery. They cannot easily change to other crops, and so long as there is any profit left, gain nothing individually by reducing acreage. Also shippers and receivers make their profits in volume handled, have heavy investments in plant and equipment, and will in some cases grow the celery themselves if it appears that regular growers are abandoning the enterprise.

THE OUTLOOK FOR SNAP BEANS FOR MARKET FOR 1939

Summary

Notwithstanding the lower prices received by growers in 1938 than in 1937 which resulted in part from a very large production of snap beans in 1938 and in part to lower consumer purchasing power, it is expected that the acreage of snap beans for the 1939 season will be increased slightly in all groups of producing States except possibly in the early, second early and second section of late States. The sharp upward trend in both acreage and production which is evident in all areas is expected to more than offset the effect of low prices received for the 1938 crop except in the areas indicated. In view of the prospects that consumer purchasing power in 1939 will be somewhat higher than in 1938, the increases in snap bean acreages probably will not result in any further declines in prices.

Except for the fall (of 1937) crop in Florida and southern Texas, the 1938 season for snap beans was characterized by increased acreage and increased production over that of the preceding season. Yields per acre, however, were somewhat below average, though generally much larger than those of the 1937 season. Total production in all areas combined for the season is indicated to be about 15 percent larger than that of the 1937 season and 35 percent above the 1927-36 average. Except for 1934, the 1938 crop was the largest on record. Consequently, both city market prices and returns to growers were considerably lower than those of a year earlier.

The total acreage of snap beans for market in 1938 was around 174,450 acres, compared with 168,070 acres in 1937 and a 10-year average of about 127,000 acres. Total (commercial) production is estimated at 14,608,000 bushels, compared with the 1937 crop of 12,700,000 bushels and a record 1934 crop of 15,202,000 bushels, of which nearly 1 million bushels were not harvested on account of market conditions. For the country as a whole, the price to growers in 1938 averaged somewhat lower than the \$1.24 per bushel for the 1937 crop.

Regional Outlook

Fall States: Plantings of 1938 season fall-crop beans in Florida and Texas were reduced about 30 percent below the 1937 acreage. Production amounted to 1,475,000 bushels, or 26 percent less than the 1937 crop. The price to growers reflected these smaller supplies and reached a high average of \$1.66 per bushel, compared with an average of only \$1 for the 1937 season. In view of the relatively high prices in the 1938 season, it seems probable that growers of fall-crop beans for the 1939 season will increase their plantings moderately. Early October reports already indicate a probable increase of about 20 percent.

Early States: The 1938 winter and spring crops in Florida and the spring crops in California and Texas were grown on a total of 60,600 acres, an increase of 16 percent over the 1937 acreage. Yields in the first section of early States were considerably higher than last year while those in the second section were slightly lower, but a combined total of about 5,303,000 bushels was harvested, or 33 percent more than the 1937 production in these groups of early States. Prices declined sharply under these heavy supplies, and growers received an average of

only 98 cents per bushel, compared with \$1.71 the year before. If growers react to these lower prices as they have reacted in other years, it is probable that the acreage for 1939 in the early States will be reduced slightly.

Second-Early States: Five southern States (Louisiana, Mississippi, Alabama, Georgia, and South Carolina), growing a second-early crop of beans, increased their acreage 7 percent in 1938, and their production of 1,538,000 bushels was 30 percent larger than the 1937 crop. Prices continued to decline as these second-early supplies reached the market, and growers received an average of only 60 cents per bushel. The year before, the average price to producers in this group of States was \$1.25. It is probable that these lower prices will cause growers to reduce the acreage sharply in 1939.

Intermediate (1) States: Acreage in the first group of intermediate States (North Carolina, Virginia, Tennessee, and Arkansas) was increased only slightly in 1938. However, yields per acre were relatively good and a crop of 1,513,000 bushels was harvested, or 45 percent above the 1937 crop and about the same percentage above the 10-year average production. Terminal market prices recovered slightly during June, when this intermediate crop was going to market, and growers received an average of 75 cents per bushel. The average price to producers the year before was 93 cents. In view of the sharp upward trend in acreage and production of snap beans in this area, it is probable that the slightly lower prices in 1938 will not result in acreage reduction but may have the effect of retarding the rate of increase.

Intermediate (2) States: The four States (Maryland, Delaware, New Jersey, and Illinois) in the second section of intermediate States also made only a slight increase over the 1937 acreage, but harvested a relatively large crop of 1,337,000 bushels this year. These beans reach the market mostly in July, when arrivals by motortruck from nearby producing sections are the heaviest of the season. Returns to growers in the second section of intermediate States this year averaged only 77 cents per bushel, whereas the 1937 average was \$1.03. The acreage in this area has also increased sharply in recent years and the lower prices in 1938 may result only in retarding the rate of increase in 1939.

Late (1) States: Record production of 1,625,000 bushels of snap beans was indicated this year in the first group of late States (Pennsylvania, New York, Michigan, and Colorado). Acreage was increased only 8 percent over that of 1937, but the indicated yield per acre was much larger, resulting in a crop 22 percent greater than that of 1937 and 140 percent above the average. The trend of acreage and production of snap beans in this group of late States has been sharply upward in the last decade and it is probable that this trend will continue into the 1939 season. This is especially true since terminal market prices in mid-September averaged only slightly lower than a year earlier.

Late (2) States: Acreage of beans in the second group of late States (South Carolina, North Carolina, Virginia, Maryland, New Jersey, Mississippi, Louisiana, and California) usually is rather large, because homegrown supplies for the country as a whole are less plentiful in the autumn months and supplies can be shipped from more distant areas. Compared with 19,550 acres in 1937, this group of States reports 20,170 acres of late beans for 1938, and production is indicated to be

Snap Bean Outlook

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1,817,000 bushels, compared with 1,863,000 bushels in 1937. Prices to growers are indicated to be somewhat lower than the average of \$1.04 per bushel for their 1937 crop, and may result in smaller plantings in this area in 1939.

Historical Review

The most outstanding features of the snap bean crop for the country as a whole in the last 20 years are the sharp increase of acreage, the general decrease in yield per acre which resulted in production not keeping pace with acreage, and the general decline in price to growers.

From a commercial total of 21,310 acres in 1918, plantings showed a sharp upward trend until the high mark of 172,630 acres was reached in 1934. In the next 2 years (1935 and 1936) acreage was reduced slightly, but since 1936 it has again been increased and in 1938 the total of about 174,450 acres has exceeded all previous records. This is an increase of 720 percent over the 1918 acreage. Most of this increase in the last 20 years has occurred in the fall and early States, which now produce approximately one-half the United States commercial crop of snap beans. Acreage increases in the second-early, intermediate, and late groups of States have been at a slower rate, because the crop in those States meets severe competition with the local or homegrown supplies.

Yield per acre, which averaged 156 bushels for the country as a whole in 1918, has shown a sharp downward trend. By 1936, yield per acre averaged only 73 bushels, but in 1937 and 1938 there was some improvement.

Commercial production in the United States in 1918 totaled only 3,325,000 bushels, while the 1938 crop is indicated at 14,608,000 bushels, an increase of nearly 340 percent. The average price per bushel to growers, in the country as a whole, has varied during these 20 years from a high mark of \$2.19 in 1923 to a low mark of 84 cents in 1934.

Snap Bean Outlook

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Snap beans for market: Commercial acreage, yield per acre, production, and season average price received by growers, average 1927-36, annual 1936-38

Area	10-year average 1927-36	1936	1937	1938
	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>
<u>Acreage</u>				
Fall	13,370	14,900	21,300	15,000
Early (1)	15,720	29,100	28,900	30,000
Early (2)	28,630	30,600	23,400	30,600
Second-early	21,300	23,670	26,500	28,400
Intermediate (1)	14,500	21,300	24,700	25,200
Intermediate (2)	11,930	13,050	13,160	13,700
Late (1)	1/ 5,280	9,500	10,560	11,380
Late (2)	16,600	21,450	19,550	20,170
Total all States ...	126,800	163,570	168,070	174,450
	<u>Bushels</u>	<u>Bushels</u>	<u>Bushels</u>	<u>Bushels</u>
<u>Yield per acre</u>				
Fall	82	87	94	98
Early (1)	91	60	62	85
Early (2)	85	89	94	90
Second-Early	62	55	45	54
Intermediate (1)	77	44	42	60
Intermediate (2)	99	95	95	98
Late (1)	145	91	126	143
Late (2)	92	81	95	90
Total all States ...	85	73	75	84
	<u>1,000 bu.</u>	<u>1,000 bu.</u>	<u>1,000 bu.</u>	<u>1,000 bu.</u>
<u>Production</u>				
Fall	1,147	1,295	2,006	1,475
Early (1)	1,412	1,746	1,792	2,550
Early (2)	2,427	2,710	2,195	2,753
Second-early	1,328	1,309	1,191	2/1,538
Intermediate (1)	1,053	942	1,047	1,513
Intermediate (2)	1,176	1,245	1,251	1,337
Late (1)	674	867	1,332	1,625
Late (2)	1,527	1,747	1,863	1,817
Total all States ...	10,677	11,861	12,677	2/14,608
	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
<u>Price per bushel</u>				
Fall	1.71	1.28	1.00	1.66
Early (1)	2.45	1.65	1.65	1.20
Early (2)	1.40	1.32	1.76	.78
Second-early	1.01	1.19	1.25	.60
Intermediate (1) .....	.99	1.12	.93	.75
Intermediate (2) .....	.98	.89	1.03	.77
Late (1) .....	.88	1.05	.95	--
Late (2)	1.08	.84	1.04	--
Total all States ...	1.28	1.20	1.24	

1/ Short-time average.
market conditions.

2/ Include some quantities not harvested on account of

THE OUTLOOK FOR FRESH TOMATOES FOR MARKET FOR 1939

Summary

Prospects for the United States as a whole indicate a decrease in plantings and production of tomatoes for the fresh market in 1939. The declines in the acreage planted are expected in those areas where prices in 1938 were drastically below those in 1937. The acreage planted in 1939 will probably be reduced below that harvested in 1938 in the second section of the Early States and in the Second Early group. In the Early (1), Intermediate, and Late States no change of any considerable magnitude is expected in the acreage planted next year as compared with 1938. An increase in acreage probably will occur in the fall group of States in view of the relatively high prices received in 1938.

Following 2 years of relatively high prices, growers planted a record high acreage in 1938. The acreage available for harvest was approximately 12 percent larger than in 1937, the previous record acreage, and about 37 percent greater than the 10-year (1927-36) average. Yields were near average. The record crop produced exceeded the previous maximum crop of 1937 by 18 percent and the 1927-36 average by 40 percent. Preliminary estimates indicate that the 1938 season average farm price is approximately \$1.00 per bushel as compared with \$1.28 per bushel in 1937 and an average of \$1.37 per bushel for the 10 years, 1927 to 1936.

The increase in production in 1938 over that in 1937 resulted largely from increases in the two groups of Early States and in the Second Early States. Increased production resulted in the Early (1) group from a yield nearly double that reported in 1937 and in the Early (2) and Second Early groups chiefly from an expansion in acreage. Production in the Fall and Intermediate groups declined from production a year ago and in the two sections of the Late group showed slight increases. Prices received by growers of tomatoes in 1938 according to early indications were lower than in 1937 in all groups except the Fall States. The tendency of this low price to reduce the acreage planted by growers next year will undoubtedly be offset to some extent by factors responsible for the rising trend in acreage of truck crops during the past several years, by the need of the large number of relatively small producers to maintain their income, and by the prospect for increased consumer demand in 1939. In spite of the increased production, the total indicated cash income received from the sale of the 1938 crop is only slightly in excess of 25 million dollars as compared with 27½ million dollars a year ago.

Outlook by Regions

Fall and Early Tomato States

Higher prices for the 1938 fall crop of tomatoes in Florida and Texas will probably result in a continuation of the recent upward trend in acreage next year. With both acreage and yield in 1938 reduced, production was considerably below the 1937 crop. The higher average price indicated for the 1938 crop of \$2.59 per bushel in comparison with \$1.90 per bushel in 1937 did not compensate for the reduced production and the cash income received from the sale of the 1938 crop was slightly below the total for last year.

Although prices for the spring crop of tomatoes in South Florida in 1938 were considerably below those in 1937, it is not expected that there will be a significant reduction in the acreage planted to tomatoes in 1939. The record production resulted from the combination of a slightly reduced acreage and yields in 1938 nearly double those in 1937. The cash income received from the sale of the crop, however, was only slightly greater than a year earlier. The preliminary estimate of the prices received by growers for the 1938 crop of \$1.70 per bushel was the lowest received since 1919 and compares with the 10-year (1927-36) average of \$2.62 per bushel.

In other producing areas of Florida, the Lower Valley of Texas, and the Imperial Valley of California, average prices received by growers of \$1.47 per bushel for the 1938 crop were the lowest on record, except for the prices received for the 1931 crop. The acreage of spring tomatoes in this area in 1938 was 50 percent greater than in the previous year. It is expected that the acreage of tomatoes in these States will show a reduction in 1939.

Imports of fresh tomatoes from Mexico and Cuba for the last 5 seasons, chiefly during the period from December through May, have averaged approximately 3,500 cars and ranged from about 2,300 cars to 4,800 cars. Domestic carlot shipments during the same months have averaged more than 10,000 cars during the last 5 seasons.

Second Early Tomato States

With the near record crop of tomatoes in the Second Early States (Georgia, Louisiana, Mississippi, South Carolina, and Texas excluding the Lower Valley) following record high crops in the two sections of the Early States, the prices received by growers of \$0.72 per bushel were the lowest ever recorded and less than half the price received for the 1937 crop. A reduction of acreage in these States is expected in 1939. The acreage in 1938 was about 21 percent above 1937 and the production 27 percent higher.

Intermediate Tomato States

Growers in the Intermediate States (North Carolina, Virginia, Maryland, New Jersey, southeastern Ohio, Union County of Illinois, Tennessee, Arkansas, Missouri, and part of California) reported lower prices in 1938 than were received in 1937. Prices received by growers averaged \$0.78 in 1938 compared with \$0.90 in 1937. Production in 1938 of 7,021,000 bushels was only slightly less than the crop of the previous year but prices were undoubtedly adversely affected by the large crops in the earlier groups. The acreage in this group has not shown great fluctuations in the past several years. No considerable change from the acreage planted by producers in 1938 is expected for the 1939 season.

Late Tomato States

Reports from the first section of the Late States comprised of 14 States or parts of States (New York, Pennsylvania, Delaware, Kentucky, part of Ohio, Indiana, part of Illinois, Michigan, Iowa, Colorado, Utah, Washington, Oregon, and the northern district of California) indicate that the price for the current crop is one of the lowest ever received by growers. The 1937 season

Fresh-Tomato Outlook

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average farm price was \$0.76 per bushel. The acreage harvested in 1938 was slightly below the maximum harvested in these States in 1937, and the current production which is slightly above last year is the maximum reported for this group. The acreage of tomatoes in these States has been relatively stable for several years and it is not anticipated that the acreage planted in 1939 will show much change.

In the southern district of California (the second section of the late States) the acreage harvested in 1938, the greatest since 1930, was sharply up from last year and production was the highest since 1925. On the basis of early reports the prices received by growers are lower than in 1937 when the farm price averaged \$1.55 per bushel for the season. It is not probable that the expansion of acreage that occurred this year will be continued, and some reductions in acreage are anticipated for 1939.

Fresh Tomato Outlook

Acreage, Production, and Farm Price of Tomatoes for Market
1927-36 Average and Years 1935 - 1938

Group	: 10-Yr. Av.: : 1927-36 :	1935	1936	1937	1938
	1	2	3	4	5

	ACREAGE (acres)				
Fall/1	4,700	8,500	7,300	10,700	9,000
Early (1) /2	12,280	15,500	11,000	17,200	15,500
Early (2) /3	27,640	23,700	35,200	27,300	41,000
Second Early/4	37,430	47,050	40,150	49,800	60,400
Intermediate/5	40,350	51,900	47,130	51,800	51,170
Late (1) /6	31,190	35,300	35,050	36,400	36,200
Late (2) /7	9,020	7,100	7,150	7,000	10,000
Total All States	162,610	189,050	182,980	200,200	223,270

	PRODUCTION (1,000 bushels)				
Fall	300	429	645	522	350
Early (1)	1,486	1,829	1,188	1,617	2,945
Early (2)	2,024	1,634	2,861	2,146	3,562
Second Early	3,557	3,547	3,219	3,133	3,978
Intermediate	5,433	7,306	6,836	7,037	7,021
Late (1)	4,488	5,109	5,049	5,983	6,273
Late (2)	885	909	930	1,155	1,400
Total All States	18,173	20,763	20,728	21,593	25,529

	FARM PRICE PER BUSHEL (dollars)				
Fall	2.38	2.02	2.07	1.90	2.59
Early (1)	2.62	2.40	2.90	2.65	1.70
Early (2)	2.26	1.93	2.12	2.32	1.47
Second Early	1.41	1.24	1.19	1.49	0.72
Intermediate	0.99	0.73	0.94	0.90	0.78
Late (1)	0.90	0.82	0.86	0.76	/8
Late (2)	1.58	1.60	1.75	1.55	/8
Total All States	1.37	1.15	1.31	1.28	/8

- /1. Florida, Texas (acreage planted fall of previous year).
 /2. Florida (south).
 /3. California (Imperial Valley), Florida (other), Texas (lower valley).
 /4. Georgia, Louisiana, Mississippi, South Carolina, Texas (other).
 /5. Arkansas, California, Illinois (Union County), Maryland, Missouri, New Jersey, North Carolina, Ohio (southeast), Tennessee, Virginia.
 /6. California (North District), Colorado, Delaware, Illinois (other), Indiana, Iowa, Kentucky, Michigan, New York, Ohio (other), Oregon, Pennsylvania, Utah, Washington.
 /7. California (South District).
 /8. Not available.

Release Date
Nov. 8, A.M.

THE OUTLOOK FOR ONIONS FOR 1939

Summary

Because of the relatively low prices received by growers for the 1938 crop, it seems probable that there will be a small decrease in the United States acreage planted to commercial onions in 1939 compared with the acreage planted in 1938. A decrease of about 5 percent is in prospect for the early group of States producing Bermuda and Creole types. Unless prices show marked improvement during the fall and winter months over those received at about harvest time, a similar acreage reduction is in prospect for the late States. No appreciable change is expected in the area to be planted in the intermediate group of onion-producing States.

Outlook by Regions

The production of Bermuda-type onions in the early producing States (California, Louisiana, and Texas) was practically the same in 1938 as it was in the preceding season. Prices received by growers, however, averaged 35 cents per cwt. below those received in 1937. The influence of these lower prices for the 1938 crop, together with the possibility of relatively large supplies of late storage onions being carried over into the beginning of the marketing season for the 1939 early crop, probably will cause growers in these early States to curtail plantings slightly. Because the 1938 yield was below the average for the 10-year (1927-36) period, the production was only about equal to the 10-year average despite an acreage that was larger than average. Should plantings be curtailed by only 5 percent and should average growing conditions prevail, the Bermuda onion crop in 1939 would probably exceed the crop of 1938 and the 10-year average crop.

The 1938 production of onions in the Intermediate States (New Jersey, Virginia, Kentucky, Oklahoma, Texas-north, Iowa-Scott County district, Washington-Walla Walla County, and California) was only slightly below the 10-year (1927-36) average production and was 29 percent below the outturn of 1937. Prices received by growers for the 1938 crop were somewhat above those received in 1937 and about equal to the 10-year average price. While the 1938 acreage was somewhat above the 10-year average acreage, it was well below the acreage harvested in each of the three seasons immediately preceding 1938. In 1935 and again in 1936, the intermediate acreage was increased sharply. In 1937 and 1938 successive large reductions were made. In view of the fact that prices received for the 1938 crop were only slightly below the average for 1927-36, it is probable that no appreciable change will be made in the acreage planted to onions in these States in 1939.

In the eastern late-crop States (Massachusetts, New York and Pennsylvania) the acreage in 1938 was about the same as in 1937, but 42 percent above the 10-year (1927-36) average. Production was 14 percent larger than in 1937 and 35 percent greater than the 10-year average. There has been an upward trend

in acreage in this group of States during the last several years. This trend was checked in 1938, however, and, in view of the low prices received by growers this fall, it is not expected that there will be any further expansion of acreage in 1939. Yields in 1938 were nearly equal to the average, but in many sections there was considerable weather damage as the crop approached maturity, and the after-harvest wastage is expected to be heavy. These factors may be an added influence toward a slight reduction of plantings in 1939.

The late central States (Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, and Iowa other than the Scott County district) increased the 1938 onion acreage by 7 percent over the acreage harvested in 1937; however, the trend has been downward during recent years and the 1938 acreage was 17 percent below the 1927-36 average. Harvested yields were slightly better than average in 1938, but unfavorable weather at harvest time resulted in some damaged onions, and the loss of tonnage after harvest is expected to be important. Unless prices strengthen very materially during the late fall and winter months, it appears probable that there may be a reduction in 1939 plantings of 5 percent or more in these late States.

Growers of onions in the western late States (Idaho, Colorado, Utah, Nevada, other Washington, Oregon, and California) have made but small changes in acreages during the last 4 years. The acreage in 1938 was about 5 percent above that of 1937 and nearly 6 percent above the 10-year (1927-36) average. Production in 1938 was slightly larger than in 1937, and about 25 percent greater than the 10-year average. The prevailing level of prices to growers at harvest time affords no incentive for increasing plantings in 1939. In view of the stability in acreage in these States during recent years, however, it does not seem probable that a very material reduction can be expected in 1939.

Onion Outlook

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Onions: Acreage, production, and farm price

Group of States	10-year average 1927-36	1934	1935	1936	1937	1938
ACREAGE						
	Acres	Acres	Acres	Acres	Acres	Acres
Early (Bermuda) 1/	23,970	25,150	26,550	34,970	24,550	27,450
Intermediate 2/	10,830	11,690	16,600	20,200	14,700	11,510
Late:						
Eastern 3/	12,340	12,330	14,780	15,900	17,610	17,530
Central 4/	25,130	21,000	26,900	22,580	19,440	20,910
Western 5/	15,110	13,950	15,300	15,420	15,210	15,990
Total, late	52,630	47,280	57,480	53,900	52,260	54,430
Total, all States	87,430	84,120	100,630	109,070	92,510	93,390
PRODUCTION						
	1,000 sacks	1,000 sacks	1,000 sacks	1,000 sacks	1,000 sacks	1,000 sacks
Early (Bermuda) 1/	2,170	1,833	1,852	3,302	2,129	2,159
Intermediate 2/	1,574	1,752	2,447	2,191	2,158	1,531
Late:						
Eastern 3/	2,773	3,336	3,101	4,237	3,283	3,731
Central 4/	4,051	3,094	3,560	4,431	3,262	3,431
Western 5/	3,070	2,878	3,511	3,066	3,838	3,853
Total, late	9,894	9,310	10,172	11,734	10,383	11,015
Total, all States	13,638	12,895	14,471	17,227	14,670	14,705
PRICE PER 100-POUND SACK 6/						
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Early (Bermuda) 1/	1.63	1.16	2.72	.76	1.59	1.24
Intermediate 2/	1.42	1.43	1.39	.92	1.17	1.35
Late:						
Eastern 3/	1.40	1.46	1.34	.94	1.48	---
Central 4/	1.34	1.52	1.14	.81	1.32	---
Western 5/	1.21	1.05	1.09	.79	1.20	---
Total, late	1.32	1.35	1.18	.85	1.33	---
Total, all States	1.40	1.34	1.42	.85	1.34	---

1/ Louisiana, Texas, California.

2/ New Jersey; Virginia; Kentucky; Oklahoma; Texas, North; Iowa, Scott County; Washington, Walla Walla, County; California.

3/ Massachusetts, New York, Pennsylvania.

4/ Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, other.

5/ Idaho, Colorado, Utah, Nevada, Washington, other, Oregon, California.

6/ Average price received by growers for crop-marketing season.

THE WATERMELON OUTLOOK FOR 1939

Summary

For the country as a whole, the production of watermelons in 1939 is expected to be somewhat larger than the medium sized crop of 1938. This prospect can be realized with no increase in acreage, provided an average yield is obtained from an area equal to that planted this season. With normal weather conditions in consuming markets and improvement in consumer income, prices per unit to growers should at least equal those of 1938 and total returns should be greater.

Review of the 1938 Season

The planted acreage in 1938 was slightly more than the average for the last 10 years, but poorer yields in many States resulted in a total production less than average for the same period. The early part of the season was characterized by good crop prospects with shipments beginning in considerable volume about 2 weeks in advance of the usual time. A protracted period of rainy weather followed, and resulted in widespread crop losses, especially in the heavily-producing areas of the Southeast, where sodden vines were exposed to intense sunshine and disease anthracnose developed. The net result was a substantial curtailment of the second early crop and an actual shortage of watermelons prior to the marketing of the late crop.

The prices received for 1938 watermelons were higher, on the average, than those prevailing during the preceding season. In the early group of States, 1938 prices were considerably lower than in 1937, owing principally to increased early volume and decreased consumer incomes; but, in the last of the second early States, and in practically all of the late group, 1938 prices were materially higher. The total cash income from the 1938 crop, however, will not greatly exceed that of 1937.

Outlook by Regions

Early States

In all probability, Florida will make a substantial reduction in acreage next season. Following the exceptionally high prices of 1937, this State planted about 15 percent more acres in 1938. Partly as a result of this increase, first shipments this season were in unusually heavy volume, and prices were relatively low. This decline in price is expected to influence growers to reduce their acreage to the 1937 level of 19,500 acres or below. In the Imperial Valley District of California, growers are expected to continue planting about 8,000 acres, an area which has been maintained during the last 3 years. On the bases of an acreage reduction in Florida, and no substantial change in California, and on average yields, normal weather, and similar or improved demand conditions, prices and cash income received by growers in the early group of States should be somewhat higher in 1939.

Second early States

For most of the second early States (Georgia, South Carolina, North Carolina, Alabama, Mississippi, Louisiana, Texas, and Arizona) the season of 1937 was definitely unprofitable. As a consequence, the acreage planted in 1938 was reduced considerably in some of those States. Prices fluctuated widely among the second early States during 1938, and, contrary to the usual pattern, those areas that marketed their melons first did not receive prices as high as the areas that shipped later. The bulk of crop damage occurred in the latter States, however, and, although their unit prices were higher, the average income per acre was probably less.

The prospects for 1939 cannot be forecast with any assurance owing to the varied success experienced with the 1938 crop. No net increase in acreage is expected in Georgia, Texas, South Carolina, and Alabama, the most important producing States of the group, and a sizable decrease in acreage is not unlikely. In the other States, particularly in North Carolina, an acreage increase may be stimulated by the unusually high prices obtained during certain weeks of the past season. It would appear now that the total acreage planted to watermelons in the second early States will remain unchanged, or will decline not more than about 5 percent to approximate the 10-year, 1927-36, average of 155,000 acres.

If the second early States plant the same, or a slightly reduced acreage, the number of melons produced next season should be substantially larger than the crop of 1938. The average yield in this group of States during the last season was only 188 melons per acre. This is the second lowest yield for this area in the last 20 years. (In 1934 the yield was 156 melons per acre.) With normal growing conditions in 1939, an average yield of 225-250 melons per acre should be realized, and a 15-25 percent increase in production is therefore possible with no increase in acreage. If such an increase in production materializes, returns to growers will probably be somewhat lower than in 1938 in the larger-producing States. In those States in which high prices prevailed in 1938, by virtue of the unusual growing conditions and subsequent supply situation, drastic price declines are not unlikely in 1939.

The late States

In the late group of States (Arkansas, California, Colorado, Delaware, Illinois, Indiana, Iowa, Maryland, Missouri, New Jersey, Oklahoma, Oregon, Virginia, and Washington) a slight increase in watermelon acreage occurred in 1938, and a better-than-average yield was realized. These States found a strong market for their crop this season, owing to the short supply and early termination of the deal in the intermediate States, and received good prices for their melons.

Since 1927, the acreage trend in the late group of States has been continuously upward, increasing from 26,500 acres in that year to 68,150 acres in 1938. It appears that this trend will be continued through 1939, stimulated by the comparatively profitable season experienced this year. Assuming a further increase in acreage in the late States, with an average yield, following a normal season in the second early States, both in point of time and in size of the crop, it is probable that the growers in this region will be confronted with excessive supplies and unfavorable marketing conditions, thereby sustaining serious declines in prices and cash income from the 1938 levels.

Watermelon Outlook

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Watermelons: Commercial Acreage, Production, Season Average Price Received by Farmers, and Value; by Regions, Average 1928-32, annual 1935-33

Iter and Region	Average 1928-32	1935	1936	1937	Preliminary 1938
	1	2	3	4	5
ACREAGE:	Acres	Acres	Acres	Acres	Acres
Early	41,460	36,500	23,500	27,500	30,500
Second-early	151,230	136,840	160,200	170,100	162,600
Late	45,310	60,190	62,900	66,240	68,150
Total	238,000	273,530	256,600	263,840	261,250
	1,000	1,000	1,000	1,000	1,000
PRODUCTION:	melons	melons	melons	melons	melons
Early	15,262/1	10,500	8,912	10,460	11,100
Second-early	39,858/1	36,171/1	37,826/1	35,049	30,564
Late	15,714/1	20,203	20,787	26,115	24,713
Total	71,774/1	66,879/1	63,555/1	71,624	66,377
	Dollars	Dollars	Dollars	Dollars	Dollars
FARM PRICE:	per 1,000	per 1,000	per 1,000	per 1,000	per 1,000
Early	198	129	170	178	/2
Second-early	107	81	128	82	/2
Late	120	107	112	108	/2
U. S. Average	127	97	129	106	/2
	1,000	1,000	1,000	1,000	1,000
FARM VALUE:	dollars	dollars	dollars	dollars	dollars
Early	2,857	1,353	1,521	1,800	/2
Second-early	4,088	2,716	4,305	2,363	/2
Late	1,869	2,153	2,253	2,303	/2
Total	8,794	6,232	8,059	7,526	/2

/1. Includes some quantities not harvested on account of market conditions and excluded in computing farm value.

/2. Data not available.

Early States: Florida, and Imperial Valley of California.

Second-early States: Georgia, South Carolina, North Carolina, Alabama, Mississippi, Louisiana, Texas, and Arizona.

Late States: Virginia, Maryland, Delaware, New Jersey, Indiana, Illinois, Iowa, Arkansas, Missouri, Oklahoma, Colorado, Washington, Oregon, and California Districts.

Source of data: U. S. Dept. Agr., Bur. Agr. Econ., Crop Reporting Board.

THE CANNING CROP OUTLOOK FOR 1939

Summary

The combined tonnage of all vegetables for processing in 1938 is indicated to be 10 to 15 percent smaller than the large 1937 production and probably will result in a total pack of important canned vegetables about 10 percent less than the record 1937 pack. Liberal carry-overs from the 1937-38 season are indicated for many of these products, however, and probably will provide a total supply only slightly below the record large supply available in 1937-38 and considerably above average annual disappearance.

In view of the present importance of large supplies, the wholesale prices of such items as green peas, snap beans, and sweet corn are now at relatively low levels. Wholesale prices of canned tomatoes are on about the same average level as prevailed during 1937-38. If canners follow their past practices it may be expected that they will contract for their 1939 acreage at prices in line with those prevailing for the canned product during the 2-month period of December and January.

With prospective supplies at the beginning of the 1938-39 season substantially in excess of average consumption, it seems probable that the total carry-over of processed vegetables at the beginning of the 1939-40 season will be larger than average and unless there is a substantial reduction in the 1939 plantings of practically all the important canning crops except tomatoes total supplies of canned vegetables available for the 1939-40 marketing season will also be large. Reductions of about 25 percent in the 1939 plantings of snap beans, about 35 percent for green peas, and 5 to 11 percent in the plantings of sweet corn would provide under average growing conditions, sufficient quantities for normal requirements and leave a carry-over at the end of the 1939-40 season that would not be burdensome.

The acreage planted in 1938 to 11 important truck crops for manufacture was about 15 percent below the 1937 plantings, with the acreage of sweet corn, cucumbers for pickles, and tomatoes for manufacture showing the greatest reductions. Indications on October 1 pointed to total production of the 11 canning crops being only 10 to 15 percent smaller than the large production recorded for 1937. But while some reduction in packs is indicated, the heavy carry-overs at the end of the 1937-38 season are supplying canners with above-average quantities for distribution during the 1938-39 season.

The 1938 production of green peas for manufacture estimated to total 298,990 tons is a record tonnage and is the second successive season of heavy production. A record large total supply (pack plus carry-over) in excess of 32 million cases is confronting canners, and probably will result in an excessive carry-over at the end of the 1938-39 marketing season. A large carry-over of green peas at the beginning of the 1939-40 season appears to be probable in spite of the present low prices for the canned product. Likewise, a record 1938 production of snap beans for manufacture, together with a carry-over of

500,000 cases at the end of the 1937-38 season, indicates that a reduction in plantings for 1939 will be necessary.

On the other hand, canners reduced their 1938 plantings of sweet corn and tomatoes for manufacture in an effort to adjust the supplies of these two crops to probable needs. Although a reduction of about 25 percent from the 1937 acreage of sweet corn was made in plantings for 1938, above-average yields have produced a pack of about 19,500,000 cases, or only 4 million cases below the 1937 pack. Added to the pack for 1938-39, however, is a carry-over of canned corn of 4,650,000 cases which resulted in a total supply about as large as in 1937-38. Therefore, a further reduction in the acreage of sweet corn for canning is in prospect for 1939. Plantings of tomatoes in 1938 were 17 percent less than in 1937. Rainy weather in the Ohio Valley and other important eastern areas further curtailed the production, and the 1938 pack of canned tomatoes may not be in excess of 20 million cases. This pack is 18 percent below the 1937 pack, and 10 percent below the 10-year (1927-36) average pack. Since the total supply consisting of a carry-over of 3,200,000 cases and a pack estimated at 20 million cases is less than average, some upward adjustment of acreage may be made for the 1939-40 season. On the basis of average yields, an increase of 20 percent in plantings appears to be needed.

A record high production of lima beans and beets for canning is indicated for 1938. Increased demand for lima beans for freezing has resulted in the expansion in the acreage planted to this crop, especially in New Jersey, Delaware, and Virginia. Of the other minor truck crops, production of pimientos for manufacture has increased in 1938 over 1937, particularly in Georgia. Acreages devoted to the production of asparagus in California, cabbage for sauerkraut, and spinach for manufacture have been reduced slightly from the 1937 acreages.

Principal canned vegetables: General statistics, average 1929-33 and annual 1934-35 to 1938-39

Year	: Carry-over :	: Pack :	: Imports :	: Total :	: Exports :	: Apparent
	: <u>1/</u> :	: <u>2/</u> :	: <u>3/</u> :	: supply :	: and ship- :	: domestic
					: <u>4/</u> :	: disappearance
	1,000 cases - No. 2 basis					
Average	:	:	:	:	:	:
1929-33	: 12,799	: 74,352	: 3,287	: 90,438	: 1,048	: 77,685
1934-35	: 4,462	: 75,253	: 2,570	: 82,285	: 952	: 77,888
1935-36	: 3,445	: 106,339	: 2,393	: 112,177	: 1,064	: 102,980
1936-37	: 8,133	: 94,680	: 2,057	: 104,870	: 967	: 97,227
1937-38	: 6,676	: 114,966	: 2,032	: 123,674	: 1,006	: 106,207
1938-39	: 5/ 16,461	: 5/ 103,500				

- 1/ Asparagus, snap beans, beets, sweet corn, green peas, tomatoes, spinach.
 2/ Same items as in carry-over, plus beets, pumpkins and squash, tomato pulp and juice.
 3/ Tomatoes: These usually account for over 90 percent of total.
 4/ Asparagus, sweet corn, peas, tomatoes. 1937-38 shipments estimated as same as 1936-37.
 5/ Preliminary.

THE OUTLOOK FOR GREEN PEAS FOR MANUFACTURE FOR 1939

Summary

A planting of approximately 210,000 acres of peas for canning and quick freezing, with expected yields and probable carry-over on May 1, 1939, would provide sufficient tonnage to pack consumers' requirements of canned peas and leave a normal carry-over on April 30, 1940. The indicated total supply for the present season of 32.1 million cases (basis 24 No. 2 cans) suggests a carry-over of at least 10 million cases at the beginning of the 1939-40 season. A pack of 13 to 14 million cases in 1939, added to these stocks would result in a supply for the 1939-40 season well above any previous annual consumption. Thirteen to 14 million cases could be packed from 150,000 tons of peas, which could be produced on 177,000 acres harvested for canning. Allowing 18,500 acres for normal acreage abandonment and 15,000 acres for quick freezing, a planting of 210,000 acres of green peas for manufacture in 1939 would be required. This would represent a reduction of 36 percent from the 325,710 acres planted in 1937.

Green peas for canning: Acreage, production, supply, disappearance, and prices

Marketing season May 1 to April 30	Planted acres	Production for canning	Average price to growers	Supply of canned peas (Pack plus carry-over)	Disappearance from canners' hands	Wholesale price of canned pe (Wiscons brokers)
	Acres	Tons (shelled)	Per ton	1,000 cases No. 2s	1,000 cases No. 2s	Per dozen No. 2 cans
1931-32	258,930	147,400	\$ 54.53	19,286	14,686	\$.908
1932-33	207,750	116,930	43.92	14,966	12,466	.912
1933-34	228,300	136,980	42.48	15,393	14,493	1.110
1934-35	280,390	165,370	50.09	16,642	15,842	1.160
1935-36	341,360	268,120	51.80	25,499	20,599	.803
1936-37	337,500	187,670	51.50	21,453	18,653	.914
1937-38	354,420	268,110	52.72	26,267	20,367	.770
1938-39 1/	325,710	298,990	50.67	32,100	---	2/.625-

1/ Indicated.

2/ September 1938.

Tremendous Supply Available

The 1938 pack, estimated at 26.2 million cases, is the largest on record by 1.5 million cases. Added to this is the near-record carry-over of 5.9 million cases, providing a supply of 32.1 million cases, or 5.8 million cases above any previous supply. The pack alone is within 100,000 cases of the previous maximum total supply of 26.3 million cases in 1937-38. During the last 10 marketing seasons, total supply has exceeded 22.0 million cases only three times in 1930-31, 1935-36, and 1937-38.

Present Prices Very Low

September, 1938, quotations were 62½-65 cents per dozen No. 2 cans, 3-4 sieve standard Alaskas, f.o.b. Wisconsin canneries, and were near the lowest price reported in many years. Some sales were reported as low as 57½ cents per dozen. A year ago, the price was 75 cents per dozen, and the average for the 1937-38 season was 77 cents.

Prices to growers averaged \$50.67 per ton of shelled peas in 1938, a reduction of \$2.05 from the 1937 average price of \$52.72. Since 1918, grower prices have averaged below the 1938 level only in the three years 1932, 1933, and 1934.

Increased Disappearance Necessary This Season

Facing a supply 11.5 million cases greater than any previous movement from canners' hands during the May-April marketing season, canners have organized a canners' cooperative marketing association to assist in expanding sales. In addition, average quality of the new pack is considered to be above normal. These factors may result in expanding sales and shipments to 22 million cases this year, in spite of the distinctly lower level of consumers' income prevailing in the first half of the 1938-39 season.

Disappearance from canners' hands for the 3 months June, July, and August, 1938, was 6,964,000 cases (all sizes), about the same as in the same period in 1937. In view of the reduction in consumer incomes, this movement reflects the lower price and a greater selling effort than a year ago. Movement for the entire 1937-38 season amounted to 20,367,000 cases, 24 No. 2's, including 868,000 cases purchased by the Federal Surplus Commodities Corporation. With the expected improvement in demand conditions, it would not be impossible for disappearance to reach the unprecedented figure of 22 million cases.

Huge Carry-over at End of 1938-39 Season

The size of the current supply renders an excessive carry-over practically certain. Even if movement is expanded 1.5 million cases above the previous record, stocks of 10 million cases will be left on hand at the end of April, 1939. This would be 4 million cases greater than the previous maximums of 6 million carry-over from the seasons 1925-26, 1926-27, and 1930-31, and 4.1 million cases above stocks at the end of 1937-38. Average carry-over from the ten seasons, 1927-28 to 1936-37, is 3.3 million cases.

Yields Recovering

The average yield of 1,890 pounds per acre in 1938 was the highest since 1928. From 1918 through 1930, yields averaged 1,946 pounds, although showing a slight downward trend. In the 5 years, 1931-1934 and in 1936, yields averaged only 1,283 pounds, with very slight variations. This abrupt

Green Peas for Manufacture Outlook

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shift can partially be explained by droughts occurring in these years in some portions of the pea area. In the 3 years, 1935, 1937, and 1938, however, yields showed a sharp recovery, averaging 1,731 pounds. Assuming favorable growing conditions next season, plantings should be based upon the assumption that yields will average at least 1,700 pounds per acre in 1939.

1939 Pack and Acreage Requirements

Assuming a carry-over of 10 million cases (the actual figure will be fairly definitely apparent by the time planting contracts are made) canners should plan for tonnage to pack approximately 13 million, but not over 14 million cases. A pack of 14-million cases would mean a combined total supply of over 46 million cases for the two seasons 1938-39 and 1939-40. In view of the disappearance in the 2 maximum but not consecutive years, 1935-36 and 1937-38, totaling 41 million cases, the combined movement for the 1938-39 and 1939-40 seasons cannot at this time be expected to exceed 43 million. Thus, a pack of 14 million in 1939 would leave stocks at the end of April, 1940 of 3 million cases or more.

With a normal pack-out, 13 million cases could be packed from about 145,000 tons of peas, and 14 million cases from about 156,000 tons available for canning. With a yield of 1,700 pounds per acre, this tonnage could be produced on a harvested acreage ranging from 170,000 to 183,500 acres.

Freezing required 14,200 tons in 1938, or the equivalent of 15,000 acres. As there are indications that a temporary leveling off of freezing activity and movement is in prospect for the immediate future, it is probable that 15,000 acres will be sufficient for this outlet in 1939.

Acreage abandonment was estimated to be 26,300 acres in 1935, 19,600 acres in 1937, and 9,300 acres in 1938, the 3 most recent years when normal yields prevailed. The average of these three indicates the necessity of allowing for abandonment of 18,500 acres.

Total planted acreage for green peas for manufacture in 1939, therefore, should lie between 203,500 and 217,000 acres, or a reduction of 33 to 37 percent from the 1938 total plantings of 325,710 acres.

GREEN PEAS FOR MANUFACTURE: Acreage, Yield per Acre, Production, Prices and Cash Income received by Growers, 1927-36 Average, 1937 and 1938

[illegible]

*Short time average

CANNED GREEN PEAS: Pack, Canners' Carryover, and Disappearance.
(in thousand cases - basis 24 no. 2 cans)

Marketing season ending April 30	Pack	Carry- over	Supply of domestic green peas	Stocks at end of season	Disappear- ance from canners' hands	Exports	Apparent domestic consumption of American green peas	Imports	Apparent domestic consumption of all green peas	Wholesale price per dozen no. 2s (Wisconsin brokers)
										Dollars
1921-22	8,207	4,000	12,207	--	12,207	29	12,173	--	12,173	1.134
1922-23	13,042	--	13,042	--	13,042	102	12,940	28	12,963	1.100
1923-24	13,943	--	13,943	--	13,943	129	13,319	50	13,369	1.270
1924-25	19,315	--	19,315	4,300	15,015	137	14,828	64	14,392	1.163
1925-26	17,316	4,300	22,115	6,000	16,116	165	15,951	66	16,017	.937
1926-27	17,709	6,000	23,709	6,000	17,709	173	17,536	51	17,587	.922
1927-28	12,936	6,000	18,936	3,400	15,536	136	15,350	33	15,383	1.032
1928-29	17,943	3,400	21,343	3,500	17,843	224	17,619	33	17,357	.991
1929-30	13,530	3,500	22,030	3,500	18,530	304	18,226	55	18,281	1.054
1930-31	22,035	3,500	25,535	6,000	19,535	214	19,321	21	19,342	.926
1931-32	13,266	3,000	19,266	4,900	14,366	91	14,595	36	14,631	.908
1932-33	10,366	4,600	14,966	2,500	12,466	67	12,399	9	12,408	.912
1933-34	12,893	2,500	15,393	900	14,493	83	14,410	8	14,418	1.110
1934-35	15,742	900	16,642	300	15,342	101	15,741	31	15,772	1.160
1935-36	24,699	300	25,499	4,900	20,599	126	20,473	16	20,489	.803
1936-37	16,553	4,900	21,453	2,900	18,553	119	18,534	16	18,550	.914
1937-38	23,467	2,900	26,267	5,900	20,367	162	20,205	13	20,218	.77
1938-39	*26,200	5,900	*32,100	--	--	-	--	-	--	** .625

* Indicated 1938-39

** September quotation.

Release Date
Nov. 8, A.M.

THE OUTLOOK FOR SNAP BEANS FOR MANUFACTURE FOR 1939

Summary

With the present supply of canned snap beans the largest on record, a reduction of about 25 percent in the acreage of snap beans for 1939 would be required to provide supplies in line with average consumption. Allowing for a carry-over from the 1938-39 marketing season somewhat larger than the 1937-38 carry-over, a pack between 6,500,000 and 7 million cases in 1939 would be enough to provide for a level of consumption somewhat above that of the six marketing seasons preceding the 1937-38 season. Under average growing conditions, this pack could be made with a planting of around 53,000 acres in 1939, as compared with a 1938 planting of 71,040 acres.

Snap beans for canning: Acreage, production, supply, disappearance, and prices

Marketing season	Planted acreage:	Production for canning:	Average price to growers:	Supply of canned snap beans (pack plus carry-over)	Disappearance of canned snapbeans from canners' hands	Wholesale price of canned snap beans at Baltimore
August 1, to July 31:	: Acres	: Tons	: Per ton	1,000 cases no. 2s	1,000 cases no. 2s	Per dozen no. 2 cans
1931-32	: 58,720	68,700	\$ 52.98	7,567	6,167	\$.63
1932-33	: 31,480	43,900	37.97	5,424	4,724	.61
1933-34	: 42,890	60,200	38.59	6,232	5,532	.71
1934-35	: 47,860	66,100	41.41	7,000	6,620	.74
1935-36	: 51,730	81,500	43.06	7,541	7,381	.69
1936-37	: 57,570	76,500	44.44	6,589	6,559	.83
1937-38	: 69,570	105,300	47.80	8,927	8,427	.66
1938-39	: 71,040	*123.100	* 45.48	*10,000	---	1/ .53

* Indicated. 1/ September quotation.

Supplies Large

Pack statistics for 1938 are not yet available, but the large production this year, exceeding the previous record production of 1937 by 17 percent, indicates that this year's pack may somewhat exceed the 1937 pack of 8,900,000 cases. Carry-over stocks from the 1937-38 season were around 500,000 (basis 24 no. 2s) cases, or slightly below the average carry-over for the preceding seven marketing seasons. But with a record high pack of between 9 million and 9,500,000 cases in prospect, canners have entered the 1938-39 marketing season with the largest supply (pack plus carry-over) of canned snap beans on record.

The 1938 prices to growers of snap beans were about 5 percent below the 1937 prices. Although growers were paid an average of \$45.48 per ton by canners in 1938 in comparison with \$47.80 for the 1937 crop, this year's prices were still about 10 percent above the average price of \$41.09 for the preceding 5-year (1932-36) period.

Plantings of snap beans totaled 71,040 acres for manufacture in 1938, exceeding the previous record high acreage of 1937 by 2 percent. And a record high production of 123,100 tons is estimated for 1938, on account of the heavier yields and the larger plantings.

Above-Average Consumption

Wholesale prices received for the canned product continued low through the 1937-38 season and the disappearance from canners' hands was the largest on record. Although the apparent consumption of snap beans during the 1936-37 marketing season was only 6,560,000 cases, about 8,368,000 cases moved into consumption during 1937-38.

The carry-over of canned snap beans at the beginning of the 1937-38 marketing season had been reduced to unusually low levels by three consecutive seasons with disappearance in excess of the annual pack. Although the carry-over for 1937-38 was low, the unusually large pack in 1937 was much more than adequate for the requirements of the marketing season ending July 31, 1938, and canners probably had around 500,000 cases to carry into the 1938-39 season. Adding this carry-over to the 1938 prospective pack indicates a supply of canned snap beans for the 1938 season that may total 10 million cases. This is the heaviest supply with which canners ever have entered into a marketing season.

There has been a rather wide range in the domestic consumption of snap beans during the last seven seasons. But with the heavy supplies for distribution during the 1938-39 season and the lowest early season prices on record, the total disappearance in the 1938-39 season probably will equal or exceed the record large disappearance of the 1937-38 season. Nevertheless, the carry-over at the beginning of the 1939-40 season is likely to be the largest since the beginning of the 1932-33 season. Therefore, a pack between 6,500,000 and 7 million cases of snap beans in 1939 probably would be sufficient to keep the supply within the limits of average consumption and leave a carry-over at the end of the 1939-40 marketing season that will not be burdensome.

Acreage and Production

A production of approximately 75,000 tons probably would provide for the required pack of canned snap beans. Given a yield per acre equal to the average of that of the 5-year (1932-36) period, or 1.50 tons per acre, 75,000 tons could be produced from a planting of around 53,000 acres. This is a reduction of about 25 percent from the 1938 planted acreage.

Snap beans for manufacture

State	Acreage		Yield per acre		Production		Price per ton		Cash income	
	10-year: Harvest: Plant-		10-year:		10-year:		10-year:		10-year:	
	average: ed :		average: 1937		average: 1937		average: 1937		average: 1937	
	1927-36: 1937 :	1938 :	1927-36: 1938 :	1938 :	1927-36: 1938 :	1938 :	1927-36: 1938 :	1938 :	1927-36: 1938 :	1938 :
	Acres	Acres	Short tons	Short tons	Short tons	Short tons	Dollars	Dollars	Dollars	Dollars
Maine	920	1,460	1,750	2.5	2,300	3,600	4,800	43.53	43.00	43.00
New York	7,900	8,100	8,650	1.6	11,800	13,000	14,700	61.24	57.40	56.30
Pennsylvania	2,220	2,220	2,450	1.4	2,900	3,700	3,900	44.64	42.70	41.00
Indiana	2,460	1,200	930	1.0	2,300	1,800	1,300	47.47	45.60	45.00
Michigan	4,300	6,300	6,800	1.3	5,400	8,200	10,900	47.00	43.70	43.60
Wisconsin	5,950	7,300	8,700	1.4	7,700	9,500	12,300	55.93	46.30	45.40
Delaware	1,220	1,000	1,070	1.3	1,400	1,700	1,500	41.90	42.50	42.50
Maryland	8,430	10,100	12,600	1.3	11,100	16,200	20,300	46.33	42.80	42.90
South Carolina	650	400	300	1.1	800	400	300	37.20	35.00	33.00
Tennessee	1,610	2,250	2,200	1.1	1,800	3,600	3,100	40.01	43.60	41.80
Mississippi	1,990	2,150	2,100	.8	1,700	1,500	2,300	40.93	39.80	37.20
Arkansas	1,890	2,350	3,400	1.1	1,800	3,800	4,100	44.36	43.70	40.00
Louisiana	1,530	1,750	1,900	1.0	1,400	1,600	2,000	38.90	40.00	40.00
Colorado	1,260	1,050	1,050	2.5	3,400	3,500	2,600	48.64	43.30	41.10
Utah	700	1,050	1,200	2.6	1,800	3,400	4,100	47.03	42.50	40.90
Washington	560	940	1,100	3.5	1,300	3,900	3,500	49.23	45.90	44.10
Oregon	740	1,710	2,200	4.3	3,200	10,800	11,400	56.16	59.20	55.00
California	570	1,430	1,400	4.0	2,200	6,500	6,300	71.69	60.30	50.00
Other States 1/	4,800	10,370	11,100	1.2	5,600	9,700	13,700	45.43	42.33	39.50
U. S. total	49,410	63,120	71,040	1.45	70,400	105,300	123,100	50.73	47.80	45.48
									3,638	5,033
										5,599

1/ "Other States" include: Florida, Georgia, Idaho, Illinois, Iowa, Kentucky, Missouri, Montana, New Jersey, North Carolina, Ohio, Oklahoma, Texas, Vermont, Virginia, and Wyoming.

Outlook for Snap Beans for Manufacture for 1939

Outlook for Snap Beans for Manufacture for 1939

4

CANNED SNAP BEANS: Pack, canners' carry-over, and disappearance (in thousand cases - basis 24 no. 2 cans)

[illegible]

** Indicated. ** October quotation.

Release date
Nov. 8, A. M.

THE OUTLOOK FOR SWEET CORN FOR MANUFACTURE FOR 1939

Summary

A planting of approximately 315,000 acres of sweet corn for manufacture in 1939, with yields similar to 1937 and 1938 and probable carry-over would provide sufficient tonnage for a supply of 22 million cases of 24 No. 2 cans for the 1939-40 marketing season, and leave a carry-over of 2 million cases. For the fourth time since 1921 the supply in the current season is in excess of 24 million cases, made up of carry-over on August 1 of 4,650,000 cases, and a new pack estimated at 19,500,000 cases. Disappearance from canners' hands this season probably will be approximately 19 million cases, which would leave a probable carry-over of 5 million cases at the end of July, 1939. With yields similar to those of 1937 and 1938, 16 to 17 million cases could be packed from about 315,000 acres. This would require a reduction of 8 percent from the 340,960 acres planted in 1938.

Sweet corn for canning: Acreage, production, supply, disappearance, and prices

Marketing season	: Planted	: Production	: Average price	: Supply of canned corn (pack plus carry-over)	: Disappearance from canners' hands	: Wholesale price canned corn (f.o.b. midwestern factories)
August 1 to July 31	: acreage	: for canning	: to growers	: corn (pack plus carry-over)	: canners' hands	: corn (f.o.b. midwestern factories)
	: Acres	: Tons (in husk)	: Per ton	: 1,000 cases No. 2s	: 1,000 cases No. 2s	: Per dozen No. 2 cans
1931-32	:366,490	785,100	\$11.06	21,415	14,115	.624
1932-33	:166,750	387,200	7.50	16,658	14,158	.574
1933-34	:208,440	394,300	8.01	12,693	11,393	.758
1934-35	:323,590	498,000	8.46	12,568	12,388	.998
1935-36	:418,990	859,900	9.31	21,651	20,771	.694
1936-37	:443,720	606,700	10.30	15,450	15,228	.960
1937-38	:454,350	978,500	11.61	24,318	19,668	.676
1938-39 1/	:340,960	809,600	10.01	24,150	---	2/ .600
1/ Indicated.						2/ September 1938.

1938 Pack Four Million Cases Below Last Year

The indicated pack of canned corn in 1938 is 19.5 million cases, 4 million below 1937, and nearly 2 million below 1935, the second largest pack in recent years. The pack is well above normal, however, compared with the 10-year average (1927-36) of 14.4 million cases. For the first time since 1926 a large pack is added to a heavy carry-over -- 4,650,000 cases being the fourth largest since 1921. Total supply for the season, August 1, 1938, to July 31, 1939, is indicated to be 24,150,000 cases of 24 No. 2 cans. This is only 170,000 cases under the 1937-38 supply, and compares with supplies of 24,560,000

cases in 1925-26 and 24,889,000 cases in 1926-27. During the past five marketing seasons, supplies have ranged between 12.6 million cases in 1934-35 and 24.3 million cases last season.

Prices of Canned Corn Lower

The heavy supplies of canned corn and the lower level of consumer income prevailing since last fall have resulted in prices almost as low as those in 1931-32 and 1932-33. In those seasons, prices for western standard evergreen corn averaged 62 cents and 57 cents per dozen No. 2 cans, f.o.b. canneries. The average for the 1937-38 season was 67.6 cents. Quotations in September 1938, averaged 60 cents per dozen.

Five to Six Million Case Carry-over Likely

Disappearance from canners' hands has been 19 million cases or more in only two seasons, 1935-36, when it was 20,771,000 cases, and 1937-38, when it was 19,668,000 cases, basis 24 No. 2 cans. In two consecutive years combined the movement has never reached 36 million cases. With near-record supplies of competing canned vegetables, and the expected gradual improvement in consumer demand, it seems probable that disappearance will be between 18 and 19 million cases. This would leave 5 to 6 million cases to be carried into the 1939-40 season.

Grower Prices

Prices to growers for the 1938 crop averaged \$10.01 per ton, as compared with \$11.65 in 1937, \$10.21 in 1936, and a 10-year average of \$10.57 for the period 1927-36. In the past there has been a fairly high relationship between wholesale prices in December and January and the grower contract price for the following spring.

Downward Trend in Yields

Over the past eighteen years, there has been a slight downward trend in average yields per acre, with the droughts of 1934 and 1936 causing the two lowest yields on record. Assuming yields approximating the average of the two years, 1937 and 1938, corn canners may expect an average yield of approximately 2.25 tons in 1939. Since 1921 yields have been of this magnitude in nine years. This average would be .3 ton above the average for the ten years, 1927-36.

Acreage Requirements for 1939

A pack of 16 to 17 million cases in 1939, added to the probable carry-over of 5 to 6 million cases, would provide a supply for the 1939-40 marketing season of 21 to 23 million cases. If the movement from canneries can be expected to reach 19 to 20 million cases in 1939-40, a reasonable carry-over of 2 to 3 million cases would be left at the end of July 1940, an amount adequate for all normal purposes.

With normal pack-out, 16 to 17 million cases could be packed from 666,000 to 708,000 tons in 1939. At the assumed yield of 2.25 tons per acre, a harvested acreage of 296,000 to 315,000 acres would be required. Allowing 3 percent of planted acreage for normal acreage abandonment, plantings of 305,000 to 325,000 acres would be required. This would represent a reduction of 5 to 11 percent from 1938 plantings.

(In thousand cases - basis 24 No. 2 cans)

Marketing season ending July 31	Pack	Carry- over	Supply of domestic sweet corn	Stocks at end of season	Disappear- ance from canners' hands	Exports of American sweet corn	Apparent domestic consumption of all sweet corn	Imports consumption of all sweet corn	Apparent domestic consumption of all sweet corn	Wholesale price per dozen no. 2s standard f.o.b. midwestern factories
1921-22 . . .	6,843	3,040	11,883	230	11,653	--	11,653	--	11,653	<u>Dollars</u> .879
1922-23	11,419	230	11,649	110	11,539	96	11,443	--	11,443	.858
1923-24	14,106	110	14,216	70	14,146	178	13,968	--	13,968	.965
1924-25	12,131	70	12,203	240	11,901	168	11,793	--	11,793	1.415
1925-26	24,320	240	24,560	5,820	18,740	194	18,546	--	18,546	.933
1926-27	19,069	6,820	24,800	8,900	15,980	171	15,813	--	15,813	.834
1927-28	10,347	8,900	19,247	3,750	15,497	156	15,341	--	15,341	.888
1928-29	14,497	3,730	18,227	3,330	14,997	297	14,700	--	14,700	.892
1929-30	17,487	3,250	20,737	3,250	17,487	307	17,180	--	17,180	.943
1930-31	15,692	3,250	18,942	2,000	16,942	132	16,810	--	16,810	.894
1931-32	19,415	2,000	21,415	7,300	14,115	67	14,043	--	14,043	.824
1932-33	9,358	7,300	16,658	2,500	14,158	48	14,110	--	14,110	.574
1933-34	10,193	2,500	12,693	1,300	11,393	61	11,332	--	11,332	.758
1934-35	11,268	1,300	12,668	190	12,368	57	12,331	--	12,331	.998
1935-36	21,471	180	21,651	860	20,771	90	20,601	--	20,601	.694
1936-37	14,600	850	15,450	777	14,673	70	14,603	--	14,603	.960
1937-38	23,541	777	24,318	4,650	19,668	89	19,579	--	--	.676
1938-39*	19,500	4,650	24,150	-	--	-	--	--	--	** .60

*Indicated

**October quotation

SWEET CORN FOR MANUFACTURE: Acreage, Yield per Acre, Production, Prices and Cash Income Received by Growers, 1927-36 Average, 1937 and 1938

Acreage		Yield Per Acre		Production		Price Per Ton		Cash Income	
10-Year Average 1927-36	Harvested 1937	10-Year Average 1927-36	Indicated 1938	10-Year Average 1927-36	Indicated 1938	10-Year Average 1927-36	Indicated 1938	10-Year Average 1927-36	Indicated 1938
Acres				Tons per acre		Tons (in bush)		Dollars	
				10-Year Average 1927-36	Indicated 1938	10-Year Average 1927-36	Indicated 1938	10-Year Average 1927-36	Indicated 1938
				3.4	3.7	18.95	16.40	754	1045
Maine	11650	18200	12000	2.8	3.2	18.36	17.40	46	50
New Hampshire	880	750	430	2.5	2.7	14.07	12.00	54	38
Vermont	1450	1300	1250	1.8	1.8	13.19	14.90	462	606
New York	19480	22600	23000	1.6	1.9	12.12	13.30	113	353
Pennsylvania	5860	9500	9500	1.8	2.0	8.88	10.40	300	439
Ohio	23170	22200	22500	1.5	1.6	10.27	12.80	537	1361
Indiana	34920	51400	41300	2.0	2.4	10.01	12.10	1251	2587
Illinois	61920	89100	53300	1.1	1.4	11.16	13.50	85	113
Michigan	6290	6000	6100	2.1	1.7	9.41	9.60	230	501
Wisconsin	11510	30700	28500	2.2	2.4	8.80	9.30	869	1609
Minnesota	45590	72100	55400	2.2	2.1	7.94	8.80	672	1003
Wisconsin	36340	54300	33600	1.5	1.7	8.04	8.30	70	24
Iowa	4330	3200	2100	2.2	2.5	10.34	11.20	71	116
Nebraska	3120	3850	2000	1.6	2.2	15.57	13.00	600	1039
Delaware	31760	38100	33100	2.4	2.8	11.98	14.00	75	106
Maryland	2630	2730	2620	*2.1	2.9	*11.74	12.40	*7	55
Tennessee	*330	1500	1900	*1.5	2.4	*13.98	13.90	*24	133
Washington	*1020	4000	2000	2.1	2.2	11.09	10.56	82	199
Oregon	3440	7430	10360	1.95	2.23	10.55	11.70	6371	11447
Other States	305440	436960	340960	2.1	2.2	10.01	10.01	8101	8101
U. S. Total	340960	436960	340960	1.95	2.23	10.55	11.70	6371	11447

* - Short-time average.

Release Date
November 8, A. M.

THE OUTLOOK FOR TOMATOES FOR MANUFACTURE FOR 1939

Summary

In view of the relatively low supply of canned tomatoes and the reduced supply of tomato products, it seems probable that canners will contract with growers for a larger acreage in 1939. Under average growing conditions, the planting of 460,000 acres of tomatoes for manufacture, or about 18 percent more than the acreage planted in 1938, probably would be sufficient to supply the expected requirements and leave a moderate carry-over at the end of the 1939-40 season of 2 million cases.

Contracts for acreage were made at lower prices in 1938 than in 1937, and the acreage planted decreased 17 percent from that in 1937. But the 1938 planted acreage was still about 9 percent above the 10-year (1927-36) average. The lower than average yield of 3.84 tons per acre on the reduced acreage resulted in the production of 24 percent less tomatoes for manufacture than in 1937, but 8 percent more than for the 10-year average (1927-36) period.

The 1938 pack is expected to total only about 20 million cases, which is 10 percent below the 10-year (1927-36) average, but the carry-over is the largest since the beginning of the 1932-33 season. Supply (pack plus carry-over) of domestic tomatoes is about 11 percent below the 1937-38 supply, and 6 percent below the 10-year (1927-36) average, but unfavorable demand conditions and a large production of competing commodities are tending to hold prices received by canners at a low level.

Tomatoes for manufacture: Acreage, production, supply, disappearance and prices

Marketing:	:	:	Average:	Supply of	:	Disappearance:	Wholesale
season	: Planted:	Production	: price	: canned tomatoes	:	: of canned	: price can-
Aug. 1	: acreage:	for	: per ton:	(pack plus can-	:	tomatoes from:	ned toma-
to	:	: manufacture:	: to	: ners' carry-over):	:	canners'	: toes(f.o.t
July 31	:	:	: growers:	:	:	hands	: Indiana)
	: Acres	Tons	Dol.	1,000 cases No.2s	1,000 cases	Per doz.	
					No. 2s	No.2 cans	
						Dol.	
1933-34	: 296,250	1,081,300	11.39	22,261	21,391	.85	
1934-35	: 435,620	1,420,700	12.03	23,246	21,916	.85	
1935-36	: 510,150	1,689,000	11.68	28,315	26,885	.70	
1936-37	: 477,100	1,987,500	12.64	25,639	23,732	.74	
1937-38	: 472,900	1,973,800	12.99	26,182	22,982	.675	
1938-39	: 391,050	*1,500,100	*12.25	23,200	---	1/.675	

* Indicated.

1/ Current October price.

Tomatoes for Manufacture Outlook

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Prices

Preliminary estimates indicate that the average price received by growers of tomatoes for commercial manufacture was 6 percent lower in 1938 than in 1937, and was 5 percent lower than the 10-year (1927-36) average. During the marketing season ended July 31, 1938, wholesale prices of canned tomatoes averaged 9 percent lower than in the previous season, and 19 percent less than the 10-year (1927-36) average. Current prices received by canners for canned tomatoes are about the same as the 1937-38 season's average price.

The level of prices received by canners in December and January is usually a significant factor in determining prices at which tonnage will be contracted with growers the following season. During December 1937 and January 1938, prices received by canners were 5 percent less than during the previous season, and canners made contracts with growers in 1938 at prices about 6 percent lower than in 1937.

Canned Supplies Below Average

Plantings in 1938 were 17 percent less than in 1937. Excessive rains during September throughout the Ohio Valley and all eastern producing areas reduced the yield to below normal and shortened the canning season for this area.

The indicated yield per acre of 3.84 tons is 12 percent less than the yield of 4.38 tons per acre in 1937, and 6 percent less than the average yield of 4.09 tons per acre obtained during the 10-year (1927-36) average. The lower-than-average yield on the reduced acreage resulted in the production of 1,500,100 tons, or about 24 percent less than the 1937 production of 1,973,800 tons, but 8 percent more than the average production of 1,385,600 tons for the 10-year (1927-36) period.

The 1938 pack of canned tomatoes is expected to be about 20 million cases, or about 18 percent below the 1937 pack, and 10 percent below the 10-year (1927-36) average of 22,103,000 cases. Packers of tomato products have had some difficulty in getting the desired quality of tomatoes for their products, and it is expected that the pack of all products will be less than in 1937, with the greatest decrease in juice. The pack of tomato juice has shown a phenomenal increase during recent years. From 5.1 million cases in 1933, the pack of juice increased to 16 million cases in 1936 and 16.2 million cases in 1937. Increases as large as occurred between 1933 and 1936 are not expected in the near future.

Carry-over on August 1, 1938 was estimated at 3.2 million cases. This is the largest carry-over since the beginning of the 1932-33 season, and is 19 percent higher than the average of the annual carry-over during the 10-year (1927-36) period. Adding this 3.2 million case carry-over to the estimated pack gives an indicated total supply of domestic canned tomatoes for 1938-39 of about 11 percent less than the 1937-38 supply and about 6 percent less than the 10-year (1927-36) average supply.

Tomatoes for Manufacture Outlook

3

Disappearance

Consumer demand for canned tomatoes during the 1937-38 season was lower than during 1936-37. The apparent domestic consumption of all tomatoes was 3 percent lower than in 1936-37, and the wholesale price was 9 percent less. The supply of domestic tomatoes was slightly higher than in 1936-37, and the disappearance from canners' hands was slightly less, being 22,982,000 cases as compared to 23,732,000 cases in 1936-37. Imports during the 1937-38 season were only 1,971,000 cases, the smallest import since 1923-24; and exports were the smallest on record, being only 63,000 cases.

On the basis of the present level of prices received by canners, the domestic supply of tomatoes, and the large supply of competing canned vegetables, it appears that the movement from canners' hands for the 12 months ending July 31, 1939 may be expected to be about 22 to 22.5 million cases and that the carry-over into the 1939-40 season will be about 1 million cases.

Acreage Requirements for 1939-40 Season

In planning their acreage for 1939, canners and growers of tomatoes for manufacture are faced with the problem of making such adjustments in acreage as will probably yield packs of tomatoes and tomato products that can be marketed during the 1939-40 season at prices above the low levels now prevailing. Judging from past records of supply and disappearance, it appears that canners may be able to market a total of 21 million cases of canned tomatoes in 1939-40, at prices approximating those received during the 1935-36 and the 1936-37 seasons. In this event, a pack not in excess of 22 million cases (basis No. 2 cans) would fill expected requirements and leave a carry-over of approximately 2 million cases at the end of the season.

A production of approximately 1,800,000 tons probably would provide for the required pack of canned tomatoes and leave an adequate tonnage for the manufacture of juice and other tomato products. At the 10-year (1927-36) average yield of 4.09 tons per acre, it would require a planting of approximately 460,000 acres, or 18 percent more than the 1938 planted acreage of 391,050 acres, to produce a pack of 22 million cases and allow sufficient acreage for normal abandonment and the production of tomatoes for juice and other tomato products.

TOMATOES FOR MANUFACTURE: Acreage, Yield per Acre, Production, Prices and Cash Income received by growers, 1927-36 Average, 1937 and 1938.

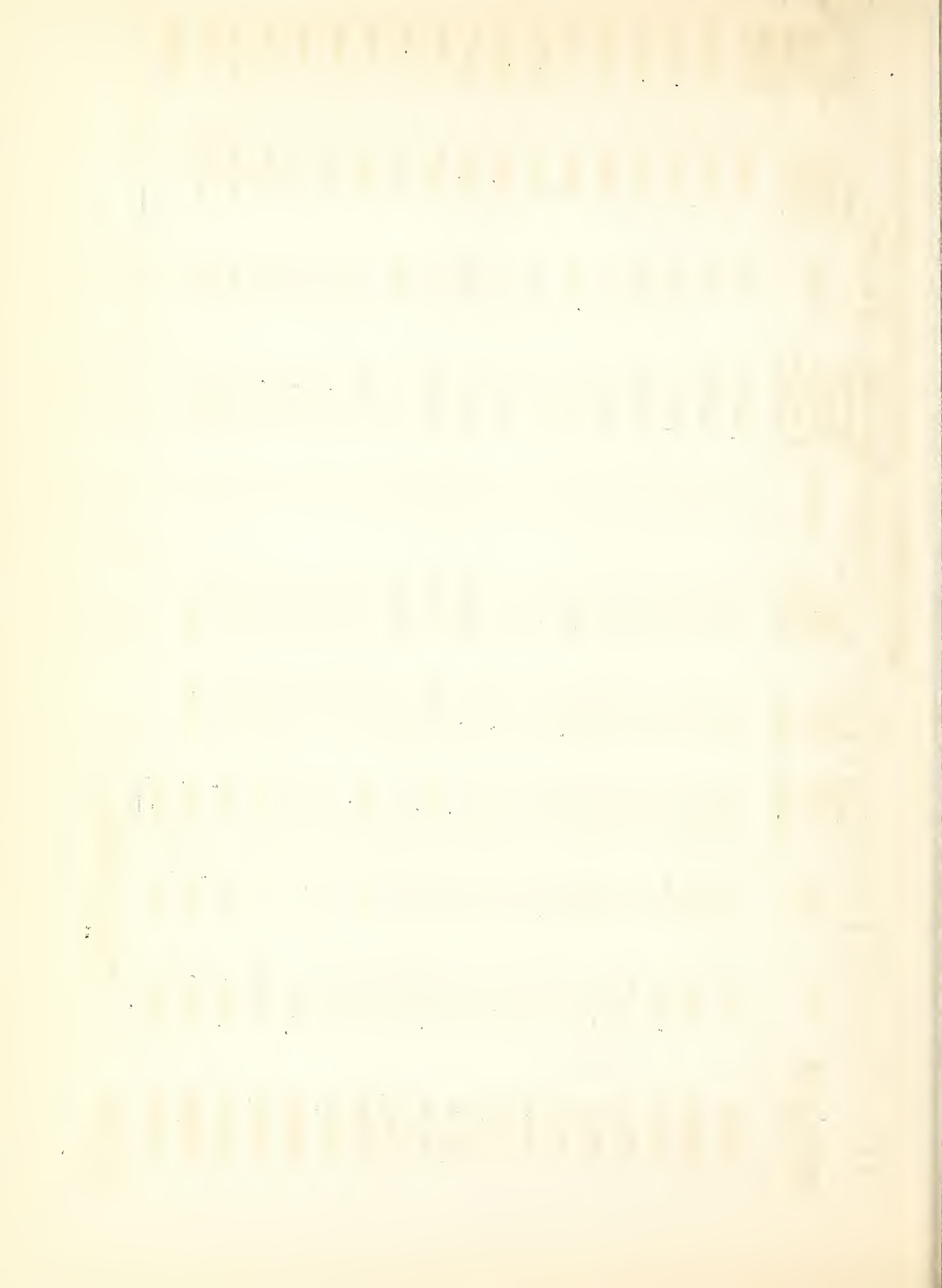
	Acreage		Yield Per Acre		Production		Price Per Ton		Cash Income(1000 Dolls.)	
	10-Year Average 1927-36	Planted 1938	10-Year Average 1927-36		10-Year Average 1927-36		10-Year Average 1927-36		10-Year Average 1927-36	
			1937	Indicated 1938 9/15	1937	Indicated 1938 9/15	1937	Indicated 1938 9/15	1937	Indicated 1938 9/15
	Acres		Tons		Tons		Dollars		Dollars	
New York	14000	17300	6.8	8.4	93400	145300	13.00	11.80	1192	1856
New Jersey	32600	30000	5.2	4.0	168500	120000	16.41	15.00	2832	2010
Pennsylvania	6700	17200	4.4	4.6	31800	79100	13.86	13.90	439	947
Ohio	12000	22500	5.6	6.1	71500	137200	10.42	12.20	736	866
Indiana	68300	70200	3.8	3.6	260700	252700	11.22	11.00	2926	5389
Illinois	7300	8800	3.2	3.2	20800	28200	12.43	11.60	262	595
Michigan	2600	6500	5.8	5.8	14600	37700	9.92	11.80	142	228
Iowa	5200	5400	3.5	3.7	17400	20000	11.67	13.00	208	412
Missouri	15700	16100	1.8	1.6	31900	25800	11.31	11.40	377	396
Delaware	13600	9400	3.5	2.5	46500	23500	14.96	12.80	698	579
Maryland	46600	52800	3.7	2.8	169200	147800	14.18	12.40	2400	2247
Virginia	17600	22000	3.0	2.6	52600	57200	12.52	12.50	670	852
Kentucky	5800	4300	2.4	2.3	14100	9900	10.77	11.20	160	170
Tennessee	9600	8900	2.2	1.8	20800	16000	11.38	11.10	242	272
Arkansas	16600	19300	1.9	1.9	35600	36700	11.34	11.40	419	436
Colorado	2400	3900	6.6	4.3	15300	16800	10.14	10.50	157	245
Utah	5600	4800	8.1	9.2	44700	44200	10.27	19.60	471	598
California	44200	43890	5.4	5.0	238500	219400	13.16	13.50	3150	6726
Other States	12300	27760	3.2	3.0	37700	82600	12.05	11.52	445	816
U.S.Total	338700	391050	4.09	3.84	1,385600	1,500100	12.84	12.25	17916	25640
					1,973,800					

CANNED TOMATOES: Pack, Canners' Carryover, and Disappearance

Marketing season ending July 31	Pack	Carry- over	Supply of domes- tic tomatoes	Stocks at end of season.	Disappcar- ance from canners' hands	(in thousand cases - basis 24 no. 2 cans)			Apparent domestic consumption of all tomatoes	Imports	Apparent domestic consumption of all tomatoes	Wholesale price per dozen no. 2s f.o.b. Indiana.
						Exports of American tomatoes	Apparent domestic consumption of American tomatoes	Dollars				
1921-22	6,857	10,750	17,507	4,270	13,337	--	13,337	205	13,542			1,155
1922-23	19,695	4,270	23,965	1,700	22,265	313	21,952	720	22,672			1,033
1923-24	25,045	1,700	26,745	4,100	22,645	320	22,325	1,088	23,413			1,090
1924-25	21,370	4,100	25,470	2,390	23,080	183	22,897	2,598	25,495			1,185
1925-26	33,747	2,390	36,137	6,490	29,647	204	29,443	2,984	32,427			.814
1926-27	16,140	6,490	22,630	3,580	19,050	264	18,786	2,821	21,607			.962
1927-28	22,425	3,580	26,005	5,630	20,375	237	20,138	3,649	23,787			.876
1928-29	14,575	5,630	20,205	1,700	18,505	141	18,364	4,009	22,373			1.111
1929-30	24,146	1,700	25,846	1,700	24,146	171	23,975	5,182	29,157			1.044
1930-31	29,015	1,700	30,715	5,400	25,315	103	25,212	2,643	27,855			.756
1931-32	16,341	5,400	21,741	3,380	18,361	162	18,199	3,219	21,418			.719
1932-33	20,500	3,380	23,880	1,800	22,080	142	21,938	2,600	24,538			.664
1933-34	20,461	1,800	22,261	870	21,391	65	21,326	2,790	24,116			.853
1934-35	22,376	870	23,246	1,330	21,916	69	21,847	2,570	24,417			.846
1935-36	26,985	1,330	28,315	1,430	26,885	70	26,815	2,393	29,209			.700
1936-37	24,209	1,430	25,639	1,907	23,732	81	23,651	2,057	25,708			.740
1937-38	24,275	1,907	26,182	3,260	22,982	63	22,919	1,971	24,889			.675
1938-39	* 20,000	3,200	*23,200	-	-	-	-	-	-			.675

- Indicated

##October quotation



Release Date
Nov. 7, P.M.

THE FRUIT OUTLOOK FOR 1939

General Summary

The average production of all fruits during the next 5 years (1939-43) probably will be larger than the average for the 5-year period (1934-38) just passed.

Significant increases are expected in the production of grapefruit, oranges, and lemons. More moderate increases are in prospect for pears, peaches, and plums and prunes. The bearing acreage of grapes is sufficient to at least maintain production on the present high level. The trend of apple production probably will be downward at a moderate rate. Material changes in the production trends of other fruits are not expected.

Recent trends of production of the 13 major fruit crops are indicated by the 5-year averages in the following table:

Volume of United States Fruit Production, major crops, 5-year averages,
1919 to date

Crop	1919-23	1924-28	1929-33	1934-38
	(Thousand tons fresh equivalent basis)			
Apples	3,904	4,013	3,805	3,667
Citrus, total	1,638	2,119	2,673	<u>1/</u> 3,644
Oranges	1,157	1,469	1,822	<u>1/</u> 2,343
Grapefruit	297	402	579	<u>1/</u> 969
Lemons	184	248	272	<u>1/</u> 332
Grapes	1,730	2,333	2,071	2,332
Peaches	1,111	1,309	1,275	1,260
Plums and prunes ...	453	621	708	771
Pears	406	531	606	705
Apricots	151	170	246	218
Strawberries	153	204	209	194
Cherries	<u>2/</u> 46	<u>3/</u> 83	<u>4/</u> 125	<u>4/</u> 134
Cranberries	28	30	31	29
Olives	10	15	19	<u>1/</u> 26
Total 13 fruits	9,630	11,428	11,768	12,980
<u>1/</u> 4-year average.	<u>2/</u> 5 States.	<u>3/</u> 10 States.	<u>4/</u> 12 States.	

Total volume of production during the past five seasons, 1934-38, was about one-third larger than that of the 5-year period 1919-23. The larger part of this increase occurred in the years between 1919 and 1928. The trend during the past decade has been moderately upward. During this period downward

Fruit Outlook

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trends in apple and peach production have been more than offset by increases in grapefruit, oranges, lemons, plums and prunes, pears, apricots and cherries.

Variations in prices received by producers for all fruits combined are associated rather closely with variations in the two factors, production and consumer income. During the decade prior to 1930, variations in consumer income were relatively minor, and most of the variation in fruit prices in this period was caused by the rather marked changes from year to year in fruit supplies. Since 1930, however, there have been large changes from year to year in consumer income, and it appears that the influence of this factor on fruit prices in recent years has been of even more importance than variation in supplies of fruit. These two factors will continue to be of primary importance in causing changes from season to season in fruit prices, their relative importance during the next few years depending upon the amount of variation in each.

Data in the following table illustrate the rather close inverse relationship between fruit production and prices during the period before 1930, and the importance of changes in consumer income (as measured by income of industrial workers) as affecting fruit prices in the years since 1930.

That variations in prices in some years since 1930 have not been caused primarily by changes in fruit production is demonstrated by the fact that the decline in the index of fruit production from 121.4 in 1931 to 104.6 in 1932 was not accompanied by the usual rise in fruit prices. The index of fruit prices actually decreased from 55.2 in 1931 to 44.1 in 1932.

Fruit production, fruit prices, and income of industrial workers
(Index numbers 1924-29 = 100)

Year	Production	Price	Income of industrial workers (July-June average)
1919	77.8	136.9	110.3
1920	93.1	121.4	98.8
1921	59.7	129.5	77.1
1922	99.3	96.0	94.9
1923	100.8	83.9	100.0
1924	91.8	103.7	94.6
1925	91.8	104.0	100.6
1926	120.1	87.0	101.0
1927	87.6	112.8	98.2
1928	118.7	80.4	104.2
1929	90.0	112.1	99.9
1930	112.4	71.3	76.2
1931	121.4	55.2	55.6
1932	104.6	44.1	41.7
1933	102.1	58.2	57.3
1934	105.3	60.0	62.0
1935	117.1	60.6	70.5
1936	101.2	74.0	86.2
1937	137.1	58.4	77.9
1938 ^{1/}	123.7		

^{1/} Based on preliminary indications.

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Per-capita production of fruits has increased somewhat since the 1919-23 period. Of more significance, however, are the shifts that have occurred in the composition of the per-capita total. (See following table).

Crop	1919-23	1924-28	1929-33	1934-38
	<u>Pounds</u>	<u>Pounds</u>	<u>Pounds</u>	<u>Pounds</u>
Apples	71.6	68.4	61.2	56.8
Citrus, total	30.0	36.1	43.0	58.7
Oranges	21.2	25.0	29.3	1/ 36.6
Grapefruit	5.4	6.9	9.3	16.9
Lemons	3.4	4.2	4.4	1/ 5.2
Grapes	31.7	39.8	33.3	36.1
Peaches	20.4	22.3	20.5	19.6
Plums and prunes	8.3	10.6	11.4	14.3
Pears	7.5	9.1	9.7	10.9
Apricots	2.8	2.9	4.0	3.4
Strawberries	2.8	3.5	3.3	3.0
Cherries .....	.8	1.4	2.0	2.1
Cranberries .....	.5	.5	.5	.4
Olives .....	.2	.3	.3	1/ .4
Total 13 fruits....	176.6	194.9	189.2	206.2
Bananas - imports	19.6	25.0	21.2	1/ 22.7

1/ Based on 4-year average.

The annual average per-capita production of the 13 fruits increased from about 177 pounds for the 5-year period, 1919-23, to 203 pounds during the past 5 years, 1934-38. During that period the per-capita production of apples had declined materially. This decline, however, has been more than offset by significant increases in the per-capita production of citrus fruits, plums and prunes, and pears. From present indications it appears that during the next 5 years a larger total per-capita supply of fruit may be expected, but an increasing proportion of this supply will be comprised of citrus fruits.

Increasing competition for the United States may be expected in foreign markets during the next 5 years. This appears probable because the trend of fruit production is upward in most countries. Many European importing countries are taking steps to insure larger production of deciduous fruits and to improve the quality of the crops. While some modification and reduction of trade barriers has been achieved through trade agreements concluded within the last 3 or 4 years, there are as yet no agreements in effect with many of the countries providing the largest export outlet for our fruit.



THE OUTLOOK FOR ORANGES FOR 1939

Summary

A continuation of the upward trend in orange production in the United States is expected during the next 5 years. Barring unusual tree damage and assuming the continuation of reasonable care of groves, crops of oranges in excess of the record production of nearly 74,000,000 boxes of last season (1937-38) may be expected.

During the last 19 years orange production increased from the average of about 30,000,000 boxes during the first 5 years of the period to the average of approximately 58,000,000 boxes for the last 5 years. Large plantings of trees made between 1920 and 1930 are now coming into fairly heavy production. These will continue to increase in bearing surface during the next 5 or 10 years. Older plantings appear to be maintaining a high rate of production per tree. The number of bearing trees now in the United States is more than double the number in groves in 1920.

Of the 37,800,000 bearing trees (5 years old and over) estimated in the groves of California, Florida, Texas, and Arizona as of 1938, 44 percent are from 5 to 15 years of age and 23 percent are 5 to 10 years old. With this large proportion of the bearing trees at an age when production per tree will increase rapidly, and with additional new trees to come into bearing each year, it seems probable that production during the next 5 seasons (1938-39 to 1942-43) will average 75,000,000 boxes or more. Production of Valencias and other late varieties is expected to increase at a faster rate than that of early and midseason varieties.

Increased production of recent years has been accompanied by relatively low prices to growers. Supplies of oranges and grapefruit during the next 5 years are expected to average larger than in the past; production of apples probably will be only slightly under average. These unfavorable price factors probably will be offset to some extent by the diversion of more oranges into juice and by-products, and possibly by some increase in exports. But as production of oranges in other countries is also increasing, disposal of large quantities in foreign markets will be difficult.

Number of Bearing Trees Increasing

Total orange trees of bearing age in the 7 States of California, Florida, Texas, Arizona, Alabama, Mississippi, and Louisiana, increased from about 14,500,000 trees in 1920 to 33,000,000 in 1935, as shown by the U. S. Census enumerations.

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Bearing, non-bearing, and total trees in these States for the last 4-census years are:

Year	Bearing (1,000 trees)	Non-bearing (1,000 trees)	Total (1,000 trees)
1920	14,438	5,225	19,663
1925	21,734	8,600	30,334
1930	24,362	7,584	31,946
1935	33,115	5,806	38,921

Estimates based on recent tree surveys in California, Florida, Texas, and Arizona, indicate about 37,800,000 bearing orange trees (including tangerines) in these States as of July 1938. This is an increase of 4 percent, or approximately 1,400,000 trees over the estimate of July 1937.

Large Number of Young Bearing Trees

The approximate number of bearing trees (including tangerines) in California, Florida, Texas, and Arizona, as of July 1938, by age groups, is as follows:

5 years old	1,100,000
6 - 10 years old	7,670,000
11 - 15 years old	7,750,000
16 - 20 years old	6,239,000
21 years and over	15,061,000
<hr/>	
Total, 5 years and over	37,820,000

Of the total of 37,820,000 bearing trees in groves in July 1938, about 44 percent were from 5 to 15 years of age and about 23 percent were 5 to 10 years old.

Most of the trees in this younger group (5 to 15 years old) may be expected to show material increases in productive capacity during each of the next several years. This is especially true of the large group which ranges from 5 to 10 years of age.

Of the 21,300,000 trees that are 16 years or older, about 71 percent are more than 20 years of age. It appears that most of the trees in this older group are near full bearing capacity and cannot be expected to show further significant increases in production per tree.

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Complete information on the number of non-bearing trees (4 years old and under) in groves is not available. But the number of new plantings has declined during recent years and the number of trees to come into bearing in the next few seasons will be correspondingly less.

Trend of Domestic Production Upward

The rapid increase in production of oranges is indicated by the following data:

Season	Production 1,000 boxes	Price per box	Season	Production 1,000 boxes	Price per box
		<u>1/</u>			<u>1/</u>
1919-20	24,738	\$ 2.81	1929-30	32,621	\$ 3.36
1920-21	32,218	2.07	1930-31	55,362	1.51
1921-22	22,539	2.78	1931-32	50,164	1.28
1922-23	32,569	2.07	1932-33	51,415	1.00
1923-24	38,496	1.68	1933-34	47,374	1.48
1924-25	30,328	3.07	1934-35	63,988	1.27
1925-26	34,597	2.80	1935-36	52,313	1.58
1926-27	40,062	2.72	1936-37	54,938	1.82
1927-28	32,708	3.77	1937-38	73,823	<u>2/</u> 1.16
1928-29	55,131	1.83			

1/ Average price received by growers from all methods of sale.

2/ Preliminary.

For the five seasons, 1919-20 through 1923-24, production in the seven States averaged 30,121,000 boxes; for the five most recent seasons, 1933-34 through 1937-38, the average was 58,487,000 boxes. During the last season, 1937-38, production reached the record-high of 73,823,000 boxes.

The upward trend in production has been most rapid during the last 10 years when large numbers of new plantings have come into bearing. Bearing acreage and production have increased in all important producing areas, including California, Florida, Texas, and Arizona. Production in Florida has increased at a somewhat faster rate than in California. California and Florida together produce about 97 percent of the nation's orange crop.

Considering the large block of young trees that will reach full production in 5 to 10 years, the trend of orange production probably will continue upward during that period. Abnormal weather conditions and neglect of trees because of low prices, are factors that may affect future production. Assuming the average growing conditions of the last 10 seasons and the continuation of reasonable care of groves, it appears that total production during the next five seasons (1938-39 to 1942-43) will average around 75,000,000 boxes.

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Production of Valencias and other late varieties is expected to increase at a somewhat faster rate than that of early and midseason varieties. About half of the bearing trees in the late group are less than 16 years of age, whereas only about one-third of the early and midseason bearing trees are under 16 years. The total number of bearing trees of all varieties (including tangerines) is about evenly divided between early and midseason varieties, and Valencias and other late varieties.

Because of the increasing importance of the late varieties, shipments of recent years have been spread out to give a larger distribution during the months of May to October, inclusive. About 40 percent of the shipments now occur during those months, whereas the average for the five seasons, 1922-23 to 1926-27 was 33 percent.

California Valencias dominate the markets from May to October, inclusive, and in July, August, and September they furnish virtually the entire market supply. Most of the increase in production in California during the next 5 years will be in Valencias. Bearing trees of this variety in California comprise about three-fifths of the 20,500,000 bearing trees in the State. About 43 percent of the California Valencia bearing trees are under 16 years of age compared with only 26 percent of the Navel and miscellaneous varieties. Preliminary estimates indicate that about 1,250,000 non-bearing orange trees in California groves will come into bearing during the next 5 years.

In Florida, increased production is expected in both the early and late varieties since a large proportion of the bearing trees in each group consists of trees under 16 years of age. Information on the number of non-bearing trees in Florida is not available. In Texas and Arizona, where early and midseason varieties predominate, production will increase rapidly in the next few years because most of the bearing trees are relatively young. Although Texas and Arizona furnish only a small part of the total supply of oranges produced in the United States, this proportion may increase slightly in the future.

World Production Increasing

The trend in world production of oranges and mandarins is definitely upward, with most of the increase during recent years occurring in Brazil, Egypt, Japan, Palestine, Spain, and the United States. The 1936-37 world crop is estimated to have been more than 228,000,000 boxes, compared with a little over 200,000,000 in 1935-36, and the 5-season (1927-31) average of 159,000,000 boxes. Next to the United States, Spain was the largest producer during the 1936-37 season, with a crop of nearly 45,000,000 boxes. Brazil was third in importance, with 36,500,000 boxes. In view of this upward trend in world production, exports from the more important countries probably will increase during the next few years.

Exports from the United States Show Increase

Spain is the leading exporter of oranges, exports from that country for the 1935-36 season amounting to 26,000,000 boxes, or more than the exports from all other countries combined. In 1936-37, however, exports from Spain amounted to only 14,004,000 boxes. United States exports for 1935-36 amounted to a little over 4,000,000 boxes, compared with 2,500,000 in 1936-37, and 7,000,000 during the first 10 months of the 1937-38 season. Military operations in Spain undoubtedly have placed the United States temporarily in a more favorable position as an exporter of oranges.

Prices to Growers Continue on Low Level

Increased production during recent years has been accompanied by relatively low prices to growers. Present indications point to an average of \$1.16 per box received by growers for the 1937-38 record crop. This is the lowest price for any crop during the 19 seasons from 1919 to 1937 except in 1932-33, when the price was \$1 per box. Average grower-returns during the 5-year period 1933-34 to 1937-38, inclusive, amounted to \$1.46 per box compared with \$1.80 for 1928-29 to 1932-33, and \$2.81 for the 5 seasons of 1923-24 to 1927-28.

Quantities Used for Juice and Byproducts Increasing

Important quantities of oranges have been utilized for the manufacture of juice, orange concentrates, canned oranges, and various byproducts during recent years. Approximate quantities so used in California-Arizona and Florida for the last four seasons are as follows:

Season	California and Arizona <u>1/</u>			Florida <u>2/</u>	Total
	Navel & Misc. (1,000 boxes)	Valencias (1,000 boxes)	All (1,000 boxes)	(1,000 boxes)	3 States (1,000 boxes)
1934-35	693	2,997	3,690	178	3,868
1935-36	487	1,240	1,727	213	1,940
1936-37	1,461	4,411	5,872	620	6,492
1937-38*	647	3,600	4,247	1,250	5,497

* Preliminary.

1/ Estimates compiled by California-Arizona Orange-Grapefruit Agency.

2/ Estimates obtained from the following sources:

1934-35 - Florida Citrus Control Committee.

1935-36 - Statistical Bulletin - Florida Citrus Exchange.

1936-37 - Florida Citrus Control Committee.

1937-38 - Wilson, H. F.: "Marketing Florida Citrus-Summary of 1937-38 Season".

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The manufacture of these products has been confined largely to California. But quantities used for processing in Florida during the past 4 years have increased rapidly, and with prospects of still larger supplies of oranges in the future, the upward trend in the manufacture of orange products can be expected to continue in both States.

In view of the prospective upward trend in production for the next several years, prices to growers probably will continue at relatively low levels. It is probable that increasing quantities will be diverted to processing plants. Considering the rapid increase in production in foreign countries, it does not appear that exports from the United States will be expanded materially.

Recognizing the increasing marketing difficulties, the California-Arizona orange industry, from 1933-34 to date, has regulated shipments to fresh markets under a Federal marketing-agreement program for the purpose of maintaining and improving grower returns. Further efforts in this field probably will be made to assist growers in marketing their crops to better advantage.

ORANGES: Production by States and average price received by growers - 7 States, 1919-1937

Crop season	P R O D U C T I O N								Prices per Box Received by Growers
	Calif- ornia 1/	Florida	Texas	Arizona	Alabama	Louisiana	Mississippi	Total 7 States	Average 7 States 2/
	- Thousand boxes -								- Dollars -
1919-20	17,073	7,533	9	80	20	37	31	24,783	2.81
1920-21	22,547	9,457	5	60	82	42	25	32,218	2.07
1921-22	13,921	8,371	5	80	82	50	30	22,539	2.78
1922-23	21,286	10,897	10	81	190	60	45	32,569	2.07
1923-24	24,324	13,725	6	86	225	75	55	38,496	1.68
1924-25	18,535	11,639	17	60	2	75	3/ --	30,323	3.07
1925-26	24,200	10,044	10	86	130	100	27	34,597	2.80
1926-27	28,167	11,512	41	75	75	150	42	40,062	2.72
1927-28	22,737	9,487	70	54	110	200	50	32,708	3.77
1928-29	38,994	15,588	115	99	85	220	30	55,131	1.83
1929-30	21,483	10,304	261	137	212	187	37	32,621	3.36
1930-31	35,470	19,211	250	139	3	287	2	55,362	1.51
1931-32	34,900	14,220	520	145	80	245	54	50,164	1.28
1932-33	34,265	16,200	325	147	120	278	80	51,415	1.00
1933-34	28,439	18,100	430	155	3	245	2	47,374	1.48
1934-35	45,047	17,600	650	170	140	293	88	63,988	1.27
1935-36	32,809	18,000	777	240	2	244	1	52,073	1.58
1936-37	29,827	22,500	2,000	220	56	309	26	54,938	1.82
1937-38*	44,952	26,700	1,440	350	76	238	67	73,823	1.16

* Preliminary.

1/ Production in California includes the following quantities which have no farm value: 1933-34 - 977,000 boxes; 1934-35 - 1,395,000; 1935-36 - 614,000; 1936-37 - 1,173,000 boxes.

2/ Average price from all methods of sale.

3/ Production negligible.

ORANGES: Production in California and Florida by varietal groups

Crop season	P R O D U C T I O N					
	California 1/			Florida 2/		
	Valencias	Navels and miscellaneous	Total	Early and Midseason	Valencias	Tangerines
	- Thousand boxes -					
1919-20	7,984	9,089	17,073	--	--	7,533
1920-21	9,942	12,605	22,547	--	--	9,457
1921-22	5,904	8,017	13,921	--	--	8,371
1922-23	9,676	11,610	21,286	--	--	10,897
1923-24	10,136	14,188	24,324	--	--	13,725
1924-25	7,297	11,238	18,535	--	--	11,639
1925-26	12,475	11,725	24,200	--	--	10,044
1926-27	13,983	14,184	28,167	--	--	11,512
1927-28	10,690	12,047	22,737	--	--	9,487
1928-29	18,947	20,047	38,994	--	--	15,588
1929-30	11,213	10,270	21,483	--	--	10,304
1930-31	18,228	17,242	35,470	--	--	19,211
1931-32	19,400	15,500	34,900	--	--	14,220
1932-33	19,324	14,941	34,265	--	--	16,200
1933-34	16,465	11,974	28,439	9,600	6,500	2,000
1934-35	26,057	18,990	45,047	10,700	4,900	2,000
1935-36	18,340	14,469	32,809	9,600	6,300	2,100
1936-37	16,593	13,234	29,827	12,000	7,500	3,000
1937-38*	28,272	16,680	44,952	13,700	10,700	2,300

* Preliminary

1/ Production in California includes the following quantities which have no farm value: Valencias, 1933-34 - 572,000 boxes; 1934-35 - 717,000; 1935-36 - 354,000; 1936-37 - 679,000 boxes. Navel and miscellaneous, 1933-34 - 405,000; 1934-35 - 678,000; 1935-36 - 260,000; 1936-37 - 494,000 boxes.

2/ Separation by varietal groups not available for Florida prior to 1933-34 season.

ORANGES: Tree numbers, U. S. Census enumerations

STATE	CENSUS 1920		CENSUS 1925		CENSUS 1930		CENSUS 1935	
	Non-bearing Trees	Bearing Trees	Non-bearing Trees	Bearing Trees	Non-bearing Trees	Bearing Trees	Non-bearing Trees	Bearing Trees
California	2,599,707	10,300,068	1,762,027	13,870,018	2,533,312	14,239,607	2,634,579	17,342,937
Florida ..	2,341,341	3,684,327	6,046,261	7,305,722	3,421,837	9,002,362	2,076,538	13,355,512
Texas	41,551	14,350	184,878	69,336	764,006	366,421	586,976	1,165,520
Arizona ..	13,362	46,952	54,185	77,246	358,914	96,564	238,051	389,120
Alabama...	165,536	260,294	359,126	262,689	161,377	432,632	62,300	277,572
Mississippi	37,350	28,127	57,109	11,406	111,981	69,703	21,290	236,639
Louisiana .	26,356	104,382	135,931	137,456	226,848	154,946	185,970	347,872
Totals	5,225,203	14,438,500	8,599,517	21,733,873	7,584,275	24,362,235	5,805,704	33,115,172

ORANGES: Estimated Bearing Trees, by States and Age Groups,
as of July 1938. 1/

Navel and Other Early Varieties

State	Bearing acres 5 years old and over	Bearing trees 5 years old and over	Bearing Trees - By Age Groups						
			5 years old	6 - 10 years old	11 - 15 years old	16 - 20 years old	21 years old and over	5-15 years old - not in full production	16 years old and over - at or near full production
	Acres								
California <u>2/</u> ...	95,938	8,443	196	725	1,236	681	5,605	2,157	6,286
Florida <u>3/</u>	114,554	7,446	249	1,385	1,479	1,519	2,814	3,113	4,333
Texas <u>4/</u>	13,864	915	41	415	395	*64		851	64
Arizona	3,977	352	33	227	28	18	46	288	64
Total 4 States	228,333	17,156	519	2,752	3,138	2,382	8,465	6,409	10,747

Valencia and Other Late Varieties

California <u>2/</u> ...	136,577	12,019	380	2,939	1,936	1,657	5,107	5,255	6,764
Florida <u>3/</u>	92,415	6,006	143	1,220	1,664	1,813	1,146	3,047	2,959
Texas <u>4/</u>	9,500	627	28	291	269	*39		588	39
Arizona	2,767	243	17	198	22	2	4	237	6
Total 4 States	241,259	18,895	568	4,648	3,911	3,511	6,257	9,127	9,768

All Varieties

California <u>2/</u> ..	232,515	20,432	576	3,664	3,172	2,338	10,712	7,412	13,050
Florida <u>3/</u>	206,969	13,452	392	2,605	3,163	3,332	3,960	6,160	7,292
Texas <u>4/</u>	23,364	1,542	69	706	664	*103		1,439	103
Arizona	6,744	595	50	425	50	20	50	525	70
Total 4 States	469,592	5/36,051	1,087	7,400	7,049	5,793	14,722	15,536	20,515

* 16 years old and older.

1/ Estimates based upon surveys by age and varietal groups made in Florida in 1934; Arizona in 1935; California in 1937; Texas in 1934 and 1937. Estimates do not include tangerines.2/ California trees calculated from acres at the rate of 88 trees per acre.3/ Florida acres calculated from trees at the rate of 65 trees per acre.4/ Texas acres calculated from trees at the rate of 66 trees per acre.5/ Total bearing trees in the United States amount to about 37,100,000 trees. In addition to the total for the four States shown above, it is estimated that there are 1,023,000 bearing trees in Alabama, Mississippi, and Louisiana, as of July 1938. Most of the trees in Alabama and Mississippi consist of satsumas; those in Louisiana are mostly Navels.

TANGERINES: Estimated Bearing Trees, by States and Age Groups,
as of July 1938 1/

State	Bearing acres 5 years old and over	Bearing trees 5 years old and over	Bearing Trees - By Age Groups						16 years old and over mostly in full production
			5 years old	6 - 10 years old	11 - 15 years old	16 - 20 years old	21 years old and over	5-15 years old - not in full production	
			- - - Thousand trees - - -						
California 2/	1,478	130	5	46	31	10	38	82	48
Florida 3/	24,446	1,589	5	199	653	433	299	857	732
Texas 4/	636	42	2	20	16	4*	--	38	4
Arizona	58	5	-	4	1	-	--	5	-
Total 4 States	26,618	1,766	12	269	701	447	537	982	784

* 16 years old and older.

1/ Estimates based upon surveys by age and varietal groups made in Florida in 1934; Arizona in 1935; California in 1937; Texas in 1934 and 1937.2/ California trees calculated from acres at the rate of 88 trees per acre.3/ Florida acres calculated from trees at the rate of 65 trees per acre4/ Texas acres calculated from trees at the rate of 66 trees per acre.

ORANGES AND MANDARINS: Estimated production in principal countries
average 1927-31, annual 1932-37
Harvesting ends in year shown

Country	Average 1927-1931	1932	1933	1934	1935	1936	1937
	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes
United States	43,166	50,164	51,415	47,374	63,988	52,313	55,129
Spain	37,368	37,300	36,109	34,400	30,458	1/29,149	1/44,823
Italy	8,780	10,260	16,188	10,263	11,367	10,148	13,188
Brazil	12,346	27,588	32,842	36,281	36,104	36,039	2/36,500
China 2/	15,000	15,000	15,000	15,000	12,000	15,000	15,000
Japan	11,213	12,496	13,053	13,943	12,164	17,274	2/15,000
Palestine 3/	2,530	4,000	5,000	5,500	7,500	6,000	10,500
Union of South Africa 3/ ..	2,000	2,500	2,800	2,800	2,900	3,300	3,000
Mexico	4/3,232	3,949	3,558	2,885	3,550	3,552	2/3,500
Australia	2,243	2,712	2,503	2,713	2,778	2,658	2/2,500
Algeria	1,880	1,807	2,398	2,245	2,190	2,417	2,802
Uruguay 2/	2,700	3,000	3,000	3,000	3,000	3,000	3,000
Greece	4/ 641	885	968	1,180	1,236	1,090	1,691
Southern Rhodesia 3/	120	190	130	150	148	151	2/150
Mozambique 3/	4/ 140	150	175	145	2/ 150	2/ 150	2/ 150
Philippine Islands	4/ 140	150	180	2/ 200	2/ 200	2/ 200	2/ 200
Tunis	60	100	110	120	150	200	300
Italian Aegean Islands ...	5/ 25	25	31	28	13	2/ 25	2/ 25
France	24	33	41	44	38	31	2/ 35
Egypt	2/1,000	2/1,600	2/2,000	2/2,200	2/2,500	2/3,270	2/ 3,900
Cyprus 3/	100	230	205	250	275	236	289
Puerto Rico 2/	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Cuba 2/	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Jamaica 2/	500	500	500	495	300	500	500
Argentina 2/	7,000	7,000	7,000	7,000	7,000	7,000	7,000
Dominica, B.W.I. 2/	10	10	10	10	12	13	15
British Honduras	6/	6/	6/	6/	2	2/ 2	2/ 2
Paraguay 2/	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Syria 2/	1,400	1,000	1,000	1,000	1,100	1,200	1,300
Chile	2/ 100	2/ 95	2/ 90	2/ 90	2/ 85	2/ 80	2/ 79
New Zealand	4/ 5	2/ 10	2/ 15	2/ 15	2/ 20	2/ 20	2/ 25
Portuguese East Africa 2/	20	30	36	40	36	36	37

Harvesting in Northern Hemisphere countries begins in the year previous to the one shown, whereas the harvesting in Southern Hemisphere countries takes place in year shown. The 1937 production, for instance, in most Northern Hemisphere countries began from September to November 1936 and was completed between April and October 1937.

Bureau of Agricultural Economics. Compiled from official, trade, and consular sources.

1/ Preliminary.

2/ Rough estimate.

3/ Estimated from exports with allowance for local consumption and waste.

4/ 4-year average.

5/ 3-year average.

6/ Not available.

ORANGES AND MANDARINS: Exports from principal countries,
average 1927-31, annual 1932-37

Country	Year ended October 31						
	Average 1927- 1931	1932	1933	1934	1935	1936	1937
	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes
United States	3,772	3,203	3,394	3,296	5,425	4,209	2,488
Spain	26,353	28,475	30,677	26,522	24,360	25,940	14,004
Italy	3,695	1,819	4,705	2,722	3,023	2,339	4,505
Palestine	1,953	3,632	4,225	5,097	6,508	4,997	9,167
Brazil	579	2,049	1,930	2,557	2,634	2,641	3,227
Japan	495	395	635	892	918	900	
Union of South Africa .	1,171	1,802	2,026	2,230	2,103	2,383	3,704
Australia	87	233	181	184	343	264	
Southern Rhodesia	157	151	107	153	145	113	118
Mozambique	21	36	25	19	8	4	
Egypt	1/	2	6	26	90	161	163
Cyprus	85	103	86	101	154	115	230
Puerto Rico 2/	240	39	15	24	19	6	2
Jamaica	58	36	93	93	65	144	258
China	369	378	454	403	538	600	
Cuba	1/	2	2	3/	2	1	
Argentina	26	3	2/	3/	7	2	3/
Algeria	550	470	774	474	783	1,754	2,147
Chile	4/ 1	3/	4	7	1	1	1
Syria	5/ 77	10	27	45	77	196	
French Morocco	1/	38	34	39	92	111	
Tunis	4/ 2	1	6	3	25	91	
Trinidad	8	16	9	16	19	19	

Bureau of Agricultural Economics. Compiled from official, trade, and consular sources. Exports in Northern Hemisphere countries start in the year previous to the one shown whereas exports from Southern Hemisphere countries are completed in the year shown. For instance exports of oranges from the United States for the 1937 year shown began in November 1936 and ended in October 1937.

1/ Not available. 2/ Shipments to United States and exports. 3/ Less than 500 boxes. 4/ 1-year only. 5/ 2-year average.

Release Date
November 7, P. M.

THE OUTLOOK FOR GRAPEFRUIT FOR 1939

Summary

Bearing acreage of grapefruit has been increasing rapidly during recent years, and the trend of production is sharply upward.

Approximately two-thirds of the bearing grapefruit trees in the United States at the present time, have not yet reached the age of full production. The trend of production during the next decade, therefore, will, in the absence of severe damage to trees by adverse weather conditions, continue upward because of the increasing bearing capacity of the large number of relatively young trees. Most of the expected increase in production will be in the late or seedless varieties of grapefruit, which predominate in Texas, California, and Arizona. In 1938 more than 80 percent of the bearing seedless grapefruit trees in the United States had not yet reached full production, while 35 percent of the bearing trees of early or seeded varieties were less than 16 years old, or not in full production.

With growing conditions similar to the average of the last 10 years, and in the light of recent production trends and potential increases in bearing surface of trees not yet in full production, it seems probable that average production during the next 5 marketing seasons will be in excess of the record-high crops of the past 2 seasons. If no serious damage to the bearing surface is encountered from unfavorable weather conditions and there are no widespread removals of present bearing trees, it is not unlikely that production during the next 5 seasons (1938-39 to 1942-43) will average 25 percent larger than during the past 2 seasons. During the 1937-38 season, when growing conditions were below average in Florida, a record crop of 30,878,000 boxes was produced, and exceeded the previous record crop of 30,440,000 boxes of 1936-37. The crops of these two seasons were more than 9,000,000 boxes larger than production in any previous season. Early indications (October 1) point to a production of 40,720,000 boxes in 1938-39, or a crop nearly 10,000,000 boxes larger than the production of 1937-38. Moreover, the trend of grapefruit production in foreign countries is increasing, and exports will meet with greater competition.

The large grapefruit crops of recent seasons have returned prices to growers about equal to the low prices received during the depression years of 1931 and 1932.

United States Grapefruit Production Increasing Rapidly

The trend in grapefruit production has been closely associated with the trend in the number of bearing trees. Data indicating grapefruit tree numbers in the United States by census years and average production during corresponding periods are given in the following table:

Grapefruit Outlook

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GRAPEFRUIT: United States tree numbers and average production

Year	Bearing trees	Marketing seasons	Average production
	<u>1,000 trees</u>		<u>1,000 boxes</u>
1920	1,937	1919-20 to 1922-23	7,043
1925	3,473	1923-24 to 1927-28	9,493
1930	5,107	1928-29 to 1932-33	14,730
1935	10,079	1933-34 to 1937-38	22,987

The number of bearing trees in 1935 was nearly twice the number in 1930, and five times the number in 1920. Average production during the period 1933-34 to 1937-38 was 50 percent larger than during the period 1928-29 to 1932-33, and 3-1/4 times the average production in 1919-20 to 1922-23.

Acreage surveys conducted in the producing areas during recent years indicate a total of 13,100,000 bearing trees (5 years old and over) in groves as of July 1938. Of this total, approximately two-thirds were from 5 to 15 years of age and had not yet reached full production. Moreover, about 45 percent of the bearing trees are from 5 to 10 years old. It is to be expected that the increase in productive capacity of the large numbers of young grapefruit trees as they grow older, will contribute to increasingly larger supplies.

Large increases in production may be expected during the next few years in Texas and Arizona where over 90 percent of the bearing trees have not yet reached full production. The same is true of California, where about 70 percent of the bearing trees are less than 16 years of age. Production in Florida, on the other hand, is not expected to increase as rapidly as in the other areas, since more than 60 percent of the bearing trees in that State have reached the age of full production. In Texas, Arizona, and California, moreover, production consists chiefly of the late, or seedless varieties, and production of seedless grapefruit will contribute an increasingly larger proportion of the total United States grapefruit supplies during the next few years. Less than 20 percent of the bearing seedless grapefruit trees in the country have reached full production, in contrast to 65 percent of the bearing seeded grapefruit trees, most of which are in Florida and now in full production.

The exact course of grapefruit production is difficult to forecast in view of the hazards of hurricanes and freezes to which the crops may be subjected. Assuming average growing conditions of the last 10 years, however, and allowing for the potential increase in bearing surface of young trees, the present bearing acreage would permit an average production during the next 5 years in excess of 35,000,000 boxes. This estimate may be modified by neglect and abandonment of

groves, for in the absence of a marked increase in purchasing power of consumers, such large crops of grapefruit probably will result in low prices and returns to growers.

The large grapefruit crops of recent seasons have returned prices to growers about equal to the low prices received for smaller crops during the depression years of 1931 and 1932. As production has expanded, increasing quantities of grapefruit have been utilized by canning plants. Of the 30,878,000-box crop in 1937-38, 40 percent was used in the canning of juice and segments for commercial outlets, and in addition over 2,200,000 boxes or 7 percent of the crop was purchased by the Federal Surplus Commodities Corporation for relief distribution. During recent years marketing control programs have been employed from time to time for the purpose of improving returns to growers.

World Production Increasing

Production of grapefruit in foreign countries has been increasing as rapidly as in the United States. During the five seasons ending in 1936-37, production of grapefruit in countries other than the United States averaged more than 2,700,000 boxes, in contrast to an average of 1,800,000 boxes during the period 1926-27 to 1930-31. United States grapefruit production averaged approximately 90 percent of the estimated world production during both of these 5-year periods.

Grapefruit production in Puerto Rico has been decreasing, but production in other areas, particularly Palestine, the Union of South Africa, Brazil, and several islands in the West Indies has been increasing rapidly. Palestine has become the world's second most important producer, with a 1937-38 crop of about 2,000,000 boxes compared with an average of 1,300,000 boxes during the period 1926-27 to 1930-31. Even with no increase in planting, the production from maturing young stock should sustain the upward trend in Palestine for the next few years. The increasing production in countries other than the United States has been reflected in sharp increases in grapefruit exports to European markets, and this upward trend in exports from foreign countries may be expected to continue for several years.

Although there has been an increase in the quantities of grapefruit consumed in European countries during recent years, the increase in exports of fresh grapefruit to these countries has not been shared by the United States. Exports of fresh grapefruit from the United States to countries other than Canada have been declining for a number of years, despite the large increases in production in this country. During the 1937-38 season, 319,000 boxes of fresh grapefruit were exported to countries other than Canada, compared with average exports of 465,000 boxes during the period 1932-33 to 1936-37 and 640,000 boxes during the preceding 5-year period.

Grapefruit for Canning

The canning of grapefruit has increased in importance during recent seasons and during the 1937-38 season about 43 percent of the total production of Florida

Grapefruit Outlook

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and Texas grapefruit was utilized for the canning of grapefruit juice and sections. The total pack of grapefruit sections in Florida, Texas, California, Arizona, and Puerto Rico increased from about 1,051,000 cases (equivalent cases of 24 No. 2 cans) in 1928-29 to the record of 4,301,000 in 1936-37, and amounted to approximately 3,150,000 cases in 1937-38. The total pack of grapefruit juice, on the other hand, amounted to the record of 8,975,000 cases in 1937-38, in contrast to 6,461,000 in 1936-37 and 205,000 cases in 1928-29.

Exports of canned grapefruit have increased rapidly during the last few years, and may continue to increase. Exports of canned grapefruit segments and juice in the 9 month period, November to July, of the 1937-38 season totaled 1,146,000 cases compared with 1,062,000 cases in the same months of the 1936-37 season. Total exports for the 1937-38 season will probably exceed the record exports of 1,159,000 cases in 1934-35.

GRAPEFRUIT: Production by States and average farm price, 4 States, 1919 to 1937

Crop Season	P R O D U C T I O N					Price per Box Received By Growers
	Florida	California <u>1/</u>	Texas	Arizona	Total 4 States	Average 4 States <u>2/</u>
	- - <u>Thousand boxes</u> - -					<u>Dollars</u>
1919-20 ...	5,898	363	3	29	6,293	1.85
1920-21 ...	6,142	395	5	34	6,576	1.90
1921-22 ...	6,644	360	8	35	7,047	1.78
1922-23 ...	7,766	394	35	60	8,255	1.46
1923-24 ...	8,936	363	65	95	9,459	.84
1924-25 ...	9,177	387	301	105	9,970	1.35
1925-26 ...	7,660	600	200	150	8,610	2.26
1926-27 ...	8,693	672	361	120	9,846	1.64
1927-28 ...	8,158	720	524	176	9,578	2.56
1928-29 ...	11,314	972	753	211	13,250	1.39
1929-30 ...	8,274	1,000	1,530	365	11,169	2.22
1930-31 ...	16,109	1,290	1,135	400	18,934	.92
1931-32 ...	10,786	1,431	2,480	450	15,147	.99
1932-33 ...	11,800	1,350	1,385	614	15,149	.74
1933-34 ...	10,700	1,713	1,140	800	14,353	.95
1934-35 ...	15,200	2,167	2,760	1,240	21,367	.70
1935-36 ...	11,500	2,267	2,762	1,800	18,329	1.05
1936-37 ...	18,100	1,310	9,630	1,400	30,440	.79
1937-38* ..	14,600	1,728	11,800	2,750	30,878	.70

GRAPEFRUIT: Production in Florida
by varietal groups, 1933 to 1937

Crop Season	P r o d u c t i o n <u>3/</u>		
	Seedless	Other	Total
	- <u>Thousand boxes</u> -		
1933-34	2,800	7,900	10,700
1934-35	4,100	11,100	15,200
1935-36	4,000	7,500	11,500
1936-37	6,000	12,100	18,100
1937-38*	5,500	9,100	14,600

* Preliminary.

1/ Production in California includes the following quantities which have no farm value: 1934-35 - 181,000 boxes; 1935-36 - 34,000 boxes; 1936-37 - 300,000 boxes.

2/ Average price from all methods of sale.

3/ Separation by varietal groups not available for Florida before the 1933-34 season.

GRAPEFRUIT: Tree numbers, U. S. Census enumerations

STATE	CENSUS 1920		CENSUS 1925		CENSUS 1930		CENSUS 1935	
	Non-bearing Trees	Bearing Trees	Non-bearing Trees	Bearing Trees	Non-bearing Trees	Bearing Trees	Non-bearing Trees	Bearing Trees
Florida ..	963,336	1,681,481	951,909	2,969,910	938,874	3,595,155	493,438	4,929,128
Texas	74,039	5,454	315,694	159,576	2,198,614	714,735	1,856,735	3,438,420
California	81,873	231,136	251,616	304,262	494,496	619,561	431,277	980,880
Arizona ..	12,768	18,819	14,568	38,988	495,254	177,068	297,478	731,032
Totals ...	1,132,016	1,936,890	1,533,787	3,472,736	4,127,238	5,106,519	3,078,928	10,079,460

GRAPEFRUIT: Estimated Bearing Trees, by States and Age Groups,
as of July 1938 ^{1/}

Early Varieties

State	Bearing acres 5 years old and over	Bearing trees 5 years old and over	Bearing Trees - By Age Groups						
			5 years old	6 - 10 years old	11 - 15 years old	16 - 20 years old	21 years old and over	5-15 years old - not in full production	16 years old and over - at or near full production
	Acres								
Florida ^{2/}	54,124	3,518	47	407	394	949	1,721	848	2,670
California ^{3/} ..	1,266	104	7	31	32	17	17	70	34
Texas ^{4/}	8,879	586	13	309	204	60*	--	526	60
Arizona	150	14	2	2	2	1	7	6	8
Total 4 States	64,419	4,222	69	749	632	1,027	1,745	1,450	2,772

Late Varieties (Seedless)

Florida ^{2/}	30,246	1,966	62	500	547	494	363	1,109	857
California ^{3/} ..	16,302	1,337	77	537	323	207	193	937	400
Texas ^{4/}	67,636	4,464	159	2,785	1,306	214*	--	4,250	214
Arizona	13,334	1,134	78	863	138	32	23	1,079	55
Total 4 States	127,518	8,901	376	4,685	2,314	947	579	7,375	1,526

All Varieties

Florida ^{2/}	84,370	5,484	109	907	941	1,443	2,084	1,957	3,527
California ^{3/} ..	17,568	1,441	84	568	355	224	210	1,007	434
Texas ^{4/}	76,515	5,050	172	3,094	1,510	274*	--	4,776	274
Arizona	13,484	1,148	80	865	140	33	30	1,085	63
Total 4 States	191,937	13,123	445	5,434	2,946	1,974	2,324	8,825	4,298

* 16 years old and older

^{1/} Estimates based upon surveys by age and varietal groups made in Florida in 1934; Arizona in 1935; California in 1937; Texas in 1934 and 1937.

^{2/} Florida acres calculated from trees at the rate of 65 trees per acre.

^{3/} California trees calculated from acres at the rate of 82 trees per acre.

^{4/} Texas acres calculated from trees at the rate of 66 trees per acre.

GRAPEFRUIT: Estimated production in principal countries,
average 1927-31, annual 1932-37

Country	Average 1927-31	1932	1933	1934	1935	1936	1937
	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes
United States	12,556	15,147	15,149	14,243	21,357	18,329	30,440
Puerto Rico <u>1/</u>	1,100	950	525	800	650	800	650
Cuba <u>2/</u>	225	300	125	225	200	250	225
Jamaica <u>2/</u>	100	125	175	150	210	180	185
Philippine Islands	<u>3/</u> 101	102	110	100	<u>4/</u> 100	<u>4/</u> 100	<u>4/</u> 100
Union of South Africa <u>2/</u>	112	200	325	375	350	400	450
Palestine <u>2/</u>	30	120	270	400	760	940	1,700
Trinidad <u>2/</u>	5	15	20	40	70	60	80
British Honduras <u>2/</u>	<u>3/</u>	5	4	16	30	40	44
Honduras <u>2/</u>	<u>5/</u>	<u>5/</u>	8	17	19	20	<u>4/</u> 20
Spain	<u>5/</u>	2	6	14	13	14	<u>4/</u> 20
Australia <u>4/</u>	17	22	25	30	35	35	40
Southern Rhodesia <u>4/</u>	5	5	5	5	5	5	6
Argentina	<u>2/</u> 10	<u>2/</u> 15	<u>2/</u> 20	28	<u>2/</u> 25	<u>2/</u> 42	49
Brazil <u>2/</u>	<u>5/</u>	25	30	40	80	95	100
Mozambique	<u>5/</u>	<u>2/</u> 30	<u>2/</u> 40	<u>2/</u> 50	61	<u>4/</u> 60	<u>2/</u> 60
Egypt <u>2/</u>	<u>5/</u>	2	4	6	8	<u>4/</u> 10	<u>4/</u> 12
Dominica, B.W.I. <u>2/</u>	<u>6/</u> 2	6	8	8	10	10	<u>4/</u> 10
Mexico	<u>3/</u> 50	<u>4/</u> 50	<u>4/</u> 55	<u>4/</u> 55	<u>4/</u> 55	<u>4/</u> 55	<u>4/</u> 60

Compiled from official, trade, and consular reports. Harvesting ends in year shown. The crops of Northern Hemisphere countries blossom in the year previous to the one shown, e.g. the 1937 crop blossomed in 1936 and harvesting started in the fall of that year but was not completed until the summer of 1937. Crops in Southern Hemisphere countries are entirely harvested in the year shown.

- 1/ Based on exports of fresh and canned fruit with an allowance for domestic consumption and waste.
2/ Based on exports with allowance for domestic consumption and waste.
3/ 3-year average.
4/ Rough estimate.
5/ Not available or less than 500 boxes.
6/ 2-year average.

GRAPEFRUIT, FRESH: Exports from principal countries,
average 1927-31, annual 1932-37

Grapefruit Outlook

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Country	Year ended Aug. 31					
	Average : 1927-31	1932	1933	1934	1935	1936 : 1937
	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes	1,000 boxes
United States	899	1,120	905	1,000	1,022	928
Union of South Africa ..	51	157	260	298	284	326
Puerto Rico 2/	672	626	284	470	216	356
Cuba	198	184	77	185	103	208
Jamaica	89	99	138	119	167	87
Palestine	3/ 14	106	245	353	683	844
Trinidad	2	11	3	24	49	40
Spain	1	1	4	12	10	5/ 10
British Honduras	2	3	2	5	19	22
Southern Rhodesia	7/	1	1	3	2	2
Mozambique	6/ 15	20	27	5/ 24	40	5/ 40
Argentina	7/	7	4	27	18	40
Brazil	7/	22	6	36	62	76
Dominica, B.W.I.	1/	2	4	6	3	5
Honduras	7/	7/	7/	16	7/	7/

Compiled from official trade and consular sources. The grapefruit exporting season for Northern Hemisphere countries begins in July in the more southern countries such as Puerto Rico, Cuba and Jamaica and in September and October in the United States and Palestine. Exports from Southern Hemisphere countries such as South Africa and Brazil usually start about March or April. The length of the season varies from the year-around in the United States to the period October to April in Palestine and from March to October in South Africa.

- 1/ Estimated from incomplete returns.
- 2/ Shipments to United States and direct exports from Puerto Rico.
- 3/ 4-year average.
- 4/ Preliminary; no final figure available.
- 5/ Rough estimate.
- 6/ 3-year average.
- 7/ Not available.

THE OUTLOOK FOR LEMONS FOR 1939

Summary

In view of the probable increase in productive capacity of a large part of the present bearing lemon acreage, together with the prospect that present non-bearing acreage will permit an increase in bearing acreage of approximately 25 percent during the next 5 years, average annual production of lemons during that period can be expected to amount to at least 10,000,000 boxes. Production has increased from an average of 4,900,000 boxes during the 5-year period 1919-20 to 1923-24, to an average of 8,022,000 boxes for the 5-year period 1932-33 to 1936-37.

Bearing lemon acreage in California in 1938 is estimated at approximately 51,500 acres, while non-bearing acreage, exclusive of 1938 plantings is indicated to be approximately 11,500 acres. Forty percent of all trees now in bearing are between the ages of 5 and 15 years, and have not yet reached full producing capacity.

World production decreased from the record crop of 27,400,000 boxes in 1932-33, to approximately 19,300,000 boxes for the 1936-37 season. Production in Italy, the world's leading producer of lemons, has declined from an average of 12,764,000 boxes during the 5-year period, 1926-27 to 1930-31, to an average of about 10,000,000 boxes for the 5 years, 1933-34 to 1937-38, inclusive. During the last two seasons the Italian crop amounted to only about 8,200,000 boxes annually.

Exports from the United States increased from 168,000 boxes during the calendar year 1933, to 638,000 boxes in 1936. A decline occurred in 1937, but during the first 8 months of 1938, 541,000 boxes were exported. Lemon imports into the United States have declined rapidly during recent years and are of only minor importance at present.

Although production has increased at a relatively rapid rate for 19 years, the average price per box has declined only slightly. But in view of an average annual production of approximately 10,000,000 boxes during the next 5 years, it seems certain that consumer demand for lemons must be stimulated still further if a declining price trend is to be averted in the future.

Bearing Acreage Increasing Rapidly

Commercial lemon production in the United States is confined almost entirely to California. Bearing acreage in California was approximately 51,500 acres in July 1938, compared with 47,100 acres in July 1937 -- an increase of 9.5 percent. About 31,000 acres, or 60 percent of the total, are 16 years of age or older, while 20,500 acres, or 40 percent, are from 5 to 15 years of age. Of this younger group, approximately 11,900 acres are between the ages of 6 and 10 years, and nearly 4,600 acres are only 5 years old. In addition to this large block of bearing acreage which consists of relatively young trees, non-bearing acreage, exclusive of 1938 plantings, is estimated at approximately 11,500 acres.

Lemon Outlook

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Production Trend Expected to Continue Upward

Most trees in the older group (16 years and older) have reached full bearing capacity, and will not show extensive increases in bearing surface in the future. In the large block of bearing trees 5 to 15 years of age, however, a rapid increase in bearing surface can be expected during the next several years. The increase in productive capacity will be particularly marked on the 16,500 acres with plantings 5 to 10 years old.

Lemon production has increased from an average of approximately 4,900,000 boxes for the 5-year period, 1919-20 to 1923-24, to an average of 8,022,000 boxes for the 5-year period 1932-33 to 1936-37. Production for 1937-38 is estimated at 8,778,000 boxes. In view of the probable increase in productive capacity of a large part of the present bearing acreage, together with the prospect that the total bearing acreage will increase by about 25 percent during the next 5 years, it seems certain that average annual production during that period will amount to at least 10,000,000 boxes.

Slight Decline in World Production

Although production of lemons in the United States has been increasing for some time, the trend in world production has been downward since the record crop of 27,400,000 boxes in 1932-33. The 1936-37 world crop was about 19,300,000 boxes.

Lemons: Production in United States, Italy and Spain,
average 1926-30, annual 1931-37.

Country	5-year average 1926-27 to 1930-31	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38 1/
- Thousand boxes -								
U. S.	6,805	7,696	6,704	7,295	10,747	7,787	7,579	8,778
Italy	12,764	10,651	17,755	12,575	10,895	10,130	8,248	8,206
Spain	1,553	1,538	1,714	1,724	1,582	1,481	1,479	2/

1/ Preliminary. 2/ Not available.

Production in Italy, the world's leading producer of lemons, has declined from an average of 12,764,000 boxes during the 5-year period, 1926-27 to 1930-31, to an average of about 10,000,000 boxes for the 5 years, 1933-34 to 1937-38, inclusive. For the last two seasons production in Italy has amounted to about 8,200,000 boxes. The reduction in the Italian crop is attributed chiefly to extensive disease damage during the last few years. In 1937-38 the United States, for the first time, produced more lemons than Italy.

THE OUTLOOK FOR LEMONS FOR 1939

Summary

In view of the probable increase in productive capacity of a large part of the present bearing lemon acreage, together with the prospect that present non-bearing acreage will permit an increase in bearing acreage of approximately 25 percent during the next 5 years, average annual production of lemons during that period can be expected to amount to at least 10,000,000 boxes. Production has increased from an average of 4,900,000 boxes during the 5-year period 1919-20 to 1923-24, to an average of 8,022,000 boxes for the 5-year period 1932-33 to 1936-37.

Bearing lemon acreage in California in 1938 is estimated at approximately 51,500 acres, while non-bearing acreage, exclusive of 1938 plantings is indicated to be approximately 11,500 acres. Forty percent of all trees now in bearing are between the ages of 5 and 15 years, and have not yet reached full producing capacity.

World production decreased from the record crop of 27,400,000 boxes in 1932-33, to approximately 19,300,000 boxes for the 1936-37 season. Production in Italy, the world's leading producer of lemons, has declined from an average of 12,764,000 boxes during the 5-year period, 1926-27 to 1930-31, to an average of about 10,000,000 boxes for the 5 years, 1933-34 to 1937-38, inclusive. During the last two seasons the Italian crop amounted to only about 8,200,000 boxes annually.

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Although production has increased at a relatively rapid rate for 19 years, the average price per box has declined only slightly. But in view of an average annual production of approximately 10,000,000 boxes during the next 5 years, it seems certain that consumer demand for lemons must be stimulated still further if a declining price trend is to be averted in the future.

Bearing Acreage Increasing Rapidly

Commercial lemon production in the United States is confined almost entirely to California. Bearing acreage in California was approximately 51,500 acres in July 1938, compared with 47,100 acres in July 1937 -- an increase of 9.5 percent. About 31,000 acres, or 60 percent of the total, are 16 years of age or older, while 20,500 acres, or 40 percent, are from 5 to 15 years of age. Of this younger group, approximately 11,900 acres are between the ages of 6 and 10 years, and nearly 4,600 acres are only 5 years old. In addition to this large block of bearing acreage which consists of relatively young trees, non-bearing acreage, exclusive of 1938 plantings, is estimated at approximately 11,500 acres.

Production Trend Expected to Continue Upward

Most trees in the older group (16 years and older) have reached full bearing capacity, and will not show extensive increases in bearing surface in the future. In the large block of bearing trees 5 to 15 years of age, however, a rapid increase in bearing surface can be expected during the next several years. The increase in productive capacity will be particularly marked on the 16,500 acres with plantings 5 to 10 years old.

Lemon production has increased from an average of approximately 4,900,000 boxes for the 5-year period, 1919-20 to 1923-24, to an average of 8,022,000 boxes for the 5-year period 1932-33 to 1936-37. Production for 1937-38 is estimated at 8,778,000 boxes. In view of the probable increase in productive capacity of a large part of the present bearing acreage, together with the prospect that the total bearing acreage will increase by about 25 percent during the next 5 years, it seems certain that average annual production during that period will amount to at least 10,000,000 boxes.

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Although production of lemons in the United States has been increasing for some time, the trend in world production has been downward since the record crop of 27,400,000 boxes in 1932-33. The 1936-37 world crop was about 19,300,000 boxes.

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Production in Italy, the world's leading producer of lemons, has declined from an average of 12,764,000 boxes during the 5-year period, 1926-27 to 1930-31, to an average of about 10,000,000 boxes for the 5 years, 1933-34 to 1937-38, inclusive. For the last two seasons production in Italy has amounted to about 8,200,000 boxes. The reduction in the Italian crop is attributed chiefly to extensive disease damage during the last few years. In 1937-38 the United States, for the first time, produced more lemons than Italy.

World Exports Decline

Italy usually accounts for 80 to 90 percent of all lemon exports. The total for all countries has declined steadily from 9,100,000 boxes during the calendar year 1933 to only 6,300,000 boxes in 1936. But during that same period, United States exports increased from 168,000 to 638,000 boxes. A decline occurred in 1937 because of severe freeze damage, which reduced the quantity of high-grade fruit available for sale. But during the first 8 months of 1938, exports from this country totaled 541,000 boxes. Lemons are also exported from a number of other countries, the most important of which are Spain and Syria.

Imports of lemons into the United States have been negligible during recent years, amounting to only 6,000 boxes in 1936, 2,000 boxes in 1935, and 26,000 boxes in 1934.

Increasing Quantities Used by Processing Plants

In years when production in California has been less than 8,000,000 boxes, a relatively small part of the crop was utilized in the manufacture of various by-products. An exception was the production of 1936-37 when 13 percent of the crop was so utilized because freeze injury rendered a considerable part unfit for fresh markets. For the record high crop of 10,747,000 boxes in 1934-35, however, it was necessary to divert 33 percent of production to byproducts plants.

The prospect of larger crops during the next 5 years indicates the probability that the volume of fruit used for processing can be expected to increase also. But prices received for lemons used for processing are much lower than prices for fruit disposed of in the fresh market.

Price Outlook

Preliminary estimates indicate that the average farm price for the 1937-38 crop will amount to about \$2.65 per box, compared with an average of \$2.44 for the 5-year period, 1932-33 to 1936-37, and \$2.88 for the previous 5-year period. Prices during the last 19 seasons ranged from \$1.41 per box for the record crop of 10,747,000 boxes in 1934-35, to \$3.80 in 1927-28.

Lemons: Production and season average prices received by growers, averages 1922-26, 1927-31, 1932-36, annual 1937

Seasons	Price (per box)	Production (1,000 boxes)
5-year average: 1922-23 to 1926-27	\$2.66	5,958
5-year average: 1927-28 to 1931-32	2.88	6,951
5-year average: 1932-33 to 1936-37	2.44	8,022
1937-38	2.65*	8,778*

* Preliminary.

Lemon Outlook

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Although production has increased at a relatively rapid rate for 19 years, average farm prices have declined only slightly. This maintenance of grower-returns on a relatively high level in the face of constantly increasing production is probably the combined result of increased consumer demand, regulation of shipments in accordance with seasonal demand, diversion of low-grade fruit to byproducts plants, and a reduction in imports.

In view of an average annual production of approximately 10,000,000 boxes during the next 5 years, however, it seems certain that consumer demand for California lemons must be stimulated still further if a declining price trend is to be averted in the future. Some increase in exports to foreign countries may materialize but it will probably be necessary that domestic markets absorb the greater portion of the expected increase.

LEMONS and LIMES: Production, and average price received by growers - 1919-1937

Crop Season	LEMONS		LIMES	
	California		Florida	
	Production	Prices per box Received by Growers ^{1/}	Production	Prices per box Received by Growers ^{1/}
	Thousand boxes	Dollars	Thousand boxes	Dollars
1919-20	4,138	2.00	28	3.45
1920-21	5,641	2.92	26	3.10
1921-22	4,520	3.45	33	2.75
1922-23	3,775	3.30	35	2.90
1923-24	6,432	1.60	40	3.00
1924-25	5,301	3.48	36	3.00
1925-26	7,316	2.11	30	4.00
1926-27	6,967	2.81	12	6.50
1927-28	5,419	3.80	^{2/} --	--
1928-29	7,562	2.30	6	4.50
1929-30	6,109	3.70	8	5.50
1930-31	7,950	2.35	8	5.00
1931-32	7,696	1.95	9	4.50
1932-33	6,704	2.10	10	4.00
1933-34	7,295	2.35	12	3.00
1934-35	10,747	1.41	15	3.50
1935-36	7,787	3.18	12	4.75
1936-37	7,579	3.15	45	3.60
1937-38*	8,778	2.65	110	3.50

^{1/} Average price from all methods of sale.^{2/} Production negligible.

* Preliminary.

LEMONS: Estimated bearing trees, by age groups, as of July 1938. ^{1/}

State	Bearing Trees - By Age Groups								
	Bearing acres 5 years old and over	Bearing trees 5 years old and over	5-years old	6 - 10 years old	11 - 15 years old	16 - 20 years old	21 years old and over	5-15 years old - not in full production	16 years old and over - at or near full production
	Acres		Thousand trees						
California ^{2/}	51,466	4,530	402	1,044	343	602	2,139	1,789	2,741

^{1/} Estimates based upon surveys by age groups made in 1937.^{2/} Lemon trees calculated from acres at the rate of 88 trees per acre.

LEMONS and LIMES: Tree numbers, U. S. Census enumerations

Crop	State	CENSUS 1920		CENSUS 1925		CENSUS 1930	
		Nonbearing	Bearing	Nonbearing	Bearing	Nonbearing	Bearing
		Trees	Trees	Trees	Trees	Trees	Trees
Lemons	California	781,535	2,884,770	284,000	3,196,469	309,185	2,776,114
Limes	Florida	80,870	115,624	--	--	15,430	42,294



THE APPLE OUTLOOK FOR 1939

Summary

The number of apple trees of bearing age in the United States is expected to continue to decrease, and the production trend is expected to continue downward at a moderate rate for several years. The number of trees that are yet to come into bearing is smaller than usual, and if plantings and replacements continue to be as light as they have been during the last several years, production 10 to 15 years hence may be materially lower than it now is.

Domestic apple supplies for the current season are about one-third less than the supplies of last season, and about 14 percent below the 1927-36 average. Low consumer buying power continues to affect the apple-price level adversely, but with a smaller crop, the prices in October 1938 were substantially higher than the low prices of a year earlier.

A lower level of business activity in many countries, continued decline in the exchange value of foreign currencies, a continuation of the import duties and trade restrictions in many countries that were in effect last year, and a good crop of apples in Canada, are factors tending to offset the favorable influence on export demand of smaller foreign fruit crops.

Production of dessert apples in the chief producing countries outside of the United States is on a slightly upward trend, and competitive apple supplies in the major United States export markets is expected to increase somewhat.

In the Pacific Coast and Rocky Mountain States production in recent years has been fairly stable at about 50,000,000 to 55,000,000 bushels per year. The peak of production has apparently been passed for the region as a whole, and the general trend is expected to be downward.

In the Central States, where annual production varies tremendously, increasing production from young orchards probably will about offset decreasing production from old commercial and farm orchards for several years, assuming average growing conditions.

Because of the nearness to large consuming centers, many of the better eastern orchards have received good care in recent years. On the other hand, the removal of unprofitable farm orchards continues. The hurricane in September 1938 damaged many of the apple trees in the New England storm area. Unless the damage is greater than now seems apparent, however, production in the eastern States as a whole is expected to continue downward at only a moderate rate during the next several years.

Year's Supply Below Average

Based on conditions as of October 1, the total apple crop of 1938 is estimated at 130,100,000 bushels which is more than one-third smaller than the 1937 crop and 14 percent below the 1927-36 average. A smaller than average crop

is indicated for each of the major apple-producing regions with the least favorable prospects in the Central States where damage from late spring frosts was severe.

Table 1. - Total production of apples by groups of States and for the United States, 1931-38 1/

State groups	: 1932	: 1933	: 1934	: 1935	: 1936	: 1937	: 1938 <u>2/</u>
	: 1,000	: 1,000	: 1,000	: 1,000	: 1,000	: 1,000	: 1,000
	: bushel:	: bushel:	: bushel:	: bushel:	: bushel:	: bushel:	: bushel
Western States <u>3/</u>	: 54,813:	: 50,171:	: 50,097:	: 53,601:	: 47,753:	: 53,322:	: 47,597
Central States <u>4/</u>	: 25,876:	: 35,175:	: 26,794:	: 48,042:	: 20,807:	: 61,410:	: 23,784
Eastern States <u>5/</u>	: 66,160:	: 63,311:	: 48,828:	: 76,273:	: 48,946:	: 95,941:	: 58,719
United States	: 146,849:	: 148,657:	: 125,719:	: 177,916:	: 117,506:	: 210,673:	: 130,100

1/ Revised figures as of June 28, 1937 for 1931-1935.

2/ Indicated production as of October 1, 1938.

3/ Includes the States of Mont., Idaho, Wyo., Colo., N. Mex., Ariz., Utah, Nev., Wash., Oreg., and Calif.

4/ Includes the States of Ohio, Ind., Ill., Mich., Wisc., Minn., Iowa, Mo., S. D., Neb., Kans., Ky., Tenn., Ala., Miss., Ark., La., Okla., and Tex.

5/ Includes the 6 New England States, N. Y., N.J., Pa., Del., Md., Va., W. Va., N. C., S.C., and Ga.

In the Central States the 1938 crop is estimated at about 24,000,000 bushels, or 30 percent below the 1927-36 average and 61 percent smaller than the 1937 crop. All of the important producing States and most of the other States in the region have below-average prospects. Five States - Michigan, Ohio, Illinois, Missouri, and Arkansas - probably will produce in 1938 about 15,000,000 bushels as compared with about 22,000,000 bushels during the 10-year period, 1927-36.

The 1938 crop in the Eastern States is about 59,000,000 bushels which is 6 percent less than average and 38 percent smaller than the 1937 crop. Production is below average in New York, Virginia, and West Virginia, and above average in Pennsylvania, New Jersey, and Maryland.

The hurricane of September 21 caused a severe loss of unharvested fruit in the New England States. The major portion of Baldwin and other late varieties remaining on the trees was blown off. Although a large part of this fruit will be salvaged for fresh sales and cider, it is certain that large quantities will be lost entirely. The October forecast excludes the quantity estimated to be a total loss.

Total production in the Western States in 1938 is indicated at about 48,000,000 bushels, or 11 percent below average and 10 percent smaller than the 1937 crop. October estimates indicate a below-average production in all the important producing States in this region with the exception of Colorado.

Apple Outlook

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Prices Higher Than Last Season

Prices to growers and at terminal markets for apples marketed in October 1938 were substantially higher than the low prices of a year earlier. Favorable factors in the Outlook for apple prices during the remainder of the 1938-39 marketing season are the relatively small apple crop and the prospect for improvement in consumer incomes during this period.

The average farm price of apples declined sharply from 1929 to 1932 chiefly because of declining consumer buying power. During 1933-36 prices averaged higher than in 1932. The highest seasonal average for the period - \$1.05 per bushel - was received for the small crop of 1936 and the lowest average price - 67 cents per bushel - was received for the unusually large crop of 1937. The prospective crop of 1938 is slightly larger than that of 1934, when the average price was 88 cents per bushel.

Table 2. - Average prices of apples to growers by regions and years ^{1/}

Region	:1925- : 29	: 1930	: 1931	: 1932	: 1933	: 1934	: 1935	: 1936	: 1937
	:Dolls.	:Dolls.	:Dolls.	:Dolls.	:Dolls.	:Dolls.	:Dolls.	:Dolls.	:Dolls.
United States	:	:	:	:	:	:	:	:	:
Crop year	: 1.20	: 1.02	: 0.65	: 0.60	: 0.70	: 0.88	: 0.71	: 1.05	: .67
Atlantic Coast States	:	:	:	:	:	:	:	:	:
Crop year	: 1.19	: 1.04	: .65	: .65	: .83	: 1.01	: .79	: 1.10	: .68
Central States	:	:	:	:	:	:	:	:	:
Crop year	: 1.29	: 1.33	: .63	: .71	: .83	: .99	: .74	: 1.14	: .72
Western States	:	:	:	:	:	:	:	:	:
Crop year	: 1.17	: .89	: .70	: .54	: .68	: .73	: .60	: .96	: .58

^{1/} See footnotes 3, 4, and 5 Table 1 for the States included in each region.

Decrease in Tree Numbers to Continue

On January 1, 1935, there were in the United States about 100,000,000 apple trees of all ages. This is less than one-half of the number reported in 1910 and about 14 percent less than the number reported in 1930. Since 1930, plantings have been light and removals have continued. The result has been a further decrease in tree numbers of bearing and non-bearing age.

In 1935, only about 17.5 percent of the trees were not of bearing age whereas during each of the 3 previous census years about 24 percent of the trees reported were yet to come into bearing. Indications are that the proportion of trees yet to reach bearing age is considerably less than it was 5 years ago, and that this percentage will continue to decrease for several years should the low rate of planting of the last several years continue.

Apple Outlook

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Table 3. - Total number of apple trees of all ages, of bearing age, and of non-bearing age, by census years for which data are available 1/

Year	All ages	Bearing age	Decrease: from previous year	Not of bearing age	Percentage of bearing age	Percentage not of bearing age
	Millions	Millions	Percent	Millions	Percent	Percent
1910	217.1	151.3		65.8	69.7	30.3
1920	151.5	115.3	24	36.2	76.1	23.9
1925	138.0	103.7	10	34.3	75.1	24.9
1930	116.3	88.8	15	27.5	76.4	23.6
1935	100.0	82.5	6	17.5	82.5	17.5

1/ U. S. Bureau of the Census figures rounded to one-tenth million.

As an average of about 10 years is required to develop an apple orchard to commercial bearing age it is evident that the trend in tree numbers of bearing age for the next several years will depend on the extent of tree removals rather than on future plantings. Should the downward trend in tree numbers continue at the same rate of decrease as occurred from 1930 to 1935, the number of bearing trees in 1940 will be approximately 77,000,000 and the number in 1945 will be about 71,000,000. The small proportion of trees that were not of bearing age in 1935 indicates the probability, however, of a somewhat larger percentage decrease than occurred from 1930 to 1935. Perhaps a better indicator is the average percentage decrease of about 2 percent during the 10-year period, 1925-35. Should this rate of decline continue the number of apple trees of bearing age in 1940 will be about 74,000,000 and the number in 1945 about 66,000,000.

Many tree removals in the past have been from less profitable commercial and farm orchards, and this has tended to increase the average yield per tree of the orchards remaining. Low apple prices, drought, and freezes of recent years have accelerated tree removals and abandonment. This process of elimination will undoubtedly continue but the rate of elimination will depend considerably on economic and weather conditions.

Long-Time Production Trend Downward

During the last 15 years a marked reduction in the number of trees of bearing age has not been accompanied by a corresponding decrease in production because of a decided increase of yield per bearing tree. Thus, in 1935 the total number of trees of bearing age was 28 percent less than the number in 1920 but total production had declined only 8 percent. With normal growing conditions during both years the decrease would have been only about 5 percent. Production for the 3 years, 1936, 1937, and 1938, has varied tremendously, or from 117,500,000 bushels in 1936 to 210,700,000 bushels in 1937. The average of these 3 crops - 152,800,000 bushels - is about what can be expected with average growing conditions.

Apple Outlook

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Table 4. - Actual total apple production and estimated production with average growing conditions, yearly averages by 5-year periods 1/

Total production	: 1912-16:	: 1917-21:	: 1922-26:	: 1927-31:	: 1932-36:	: 1937	: 1938 <u>2/</u>
	: Million:	: Million:	: Million:	: Million:	: Million:	: Million:	: Million:
	: bushels:	: bushels:	: bushels:	: bushels:	: bushels:	: bushels:	: bushels:
Actual	: 211.5	: 155.9	: 182.6	: 158.1	: 143.3	: 210.7	: 130.1
Estimated with average	:	:	:	:	:	:	:
growing conditions	: 186.8	: 164.3	: 151.7	: 160.1	: 156.3	: 154.9	: -

1/ Revised figures as of June 28, 1937 for 1919-1935.

2/ Indicated production as of Oct. 1, 1938.

The increase in yield per bearing tree of 35 percent from 1920 to 1935 is the result of an exceptionally large increase between 1925 and 1930 when many plantings in the Northwest were coming into full bearing. At other 5-year intervals since 1910 the increase has averaged only about 5.5 percent, or 1.1 percent a year.

Should the number of bearing trees continue to decrease at the same rate of decline as prevailed during 1930-35, should yield per tree continue to increase at an average rate of 1.1 percent a year, and should growing conditions be average, production will be around 150,000,000 bushels about 1945. But should tree numbers of bearing age continue to decrease at the rate of decline that prevailed between 1925 and 1935 and yield per bearing tree continue to increase at an average rate of 1.1 percent a year, production about 1945 will average around 140,000,000 bushels, provided growing conditions are average. About 155,000,000 bushels of apples per year are now produced in the United States when growing conditions are average.

Table 5. - Actual yield of apples per bearing tree, and estimated yield with average growing conditions 1/

Yield per bearing tree	: 1910	: 1915 <u>2/</u> :	: 1920	: 1925	: 1930	: 1935
	: Bushels:	: Bushels:	: Bushels:	: Bushels:	: Bushels:	: Bushels:
Actual	: 1.02	: 1.49	: 1.35	: 1.76	: 1.78	: 1.74
Estimated with average	:	:	:	:	:	:
growing conditions	: 1.25	: 1.32	: 1.41	: 1.46	: 1.80	: 1.90

1/ Obtained by dividing 5-year average total production of apples by number of apple trees of bearing age. The 5-year averages for production are shown in table 4.

2/ To obtain "actual" yield per bearing tree, the number of trees of bearing age were estimated.

Obviously these indications are based upon past performance of the apple industry, and such performance may be modified in the future. In the past, increases in the average yield per bearing tree have been due to an increase of the bearing surface of trees as they increased in age, and to the removal of many low-producing trees. The removal of poor orchards is expected to continue. Some of these will be replaced but such removals and replacements may have relatively little effect upon production during the next 8 years, for

many of the old trees are producing little fruit and the replacements will not be old enough for production. On the other hand, yield per bearing tree may not continue to increase as rapidly as in the past, and in that event production about 1945 may be somewhat less than is indicated.

Looking farther ahead, it is apparent that the future rate of planting will be a very important factor in production. Many commercial orchards were planted shortly after the World War. These have helped substantially in maintaining production as their producing capacity increased with age. Eight or ten years from now many of these orchards will have reached or will be near the point of declining production, and declining production from the older orchards will be more pronounced. Thereafter, production may decline rather rapidly, unless plantings are made to replace the orchards that will be going out of production.

Competitive Apple Supplies Increasing

The trend of competitive apple supplies in United States major export markets is generally upward. European production of dessert apples has been increasing in recent years partly through governmental assistance in making new plantings, reviving older fruit areas, and improving quality. But consumption of high-quality dessert fruit has declined in some European markets since efforts to increase production have not succeeded in replacing the supplies formerly imported in the United Kingdom, which is the leading export market for United States apples, increasing supplies from Empire sources, particularly Canada, offer serious competition.

Another factor that is causing increased competition in foreign markets is the tendency in many countries to prolong the marketing period for home-produced fruits by better cultural and harvesting methods and by the increased use of cold storage. The present tendency in some countries is to sort out some of the best quality fruit for winter storage and to prolong the period of tariff or license protection until February or even March, thus leaving only a brief period in which fruit from the United States can be marketed before competition from the southern hemisphere begins.

Apple exports have been declining during the past decade, although at a slower rate than for many other agricultural exports. Trade barriers have been an important factor contributing to the decline in recent years. In some foreign markets quantitative trade restrictions have been so onerous as to cause sharp declines in imports; in others, heavy import duties have raised prices and curtailed consumption. Progress has been made in securing the relaxation of import restrictions under the Trade Agreements Program. Concessions have been obtained for apples in 16 of the 18 trade agreements now in effect. These have helped considerably in preventing apple exports from declining further.

United States apple exports are expected to be smaller in 1938-39 than last season, when, principally because of the large domestic crop and the resultant low prices, exports of fresh apples jumped to 10,960,000 bushels as compared with 6,800,000 bushels in 1936-37. With a reduced domestic apple production this year smaller quantities will be available for export, although crop prospects are better in States that produce export varieties than elsewhere. The United Kingdom, France, and the Netherlands, take about half of United States apple exports. Apple crops in the United Kingdom and the Netherlands as well as

in European countries generally, are much below last years. Keen competition may be expected, however, from Canadian apples in European markets, particularly in the United Kingdom for this year's Canadian crop is nearly as heavy as the large crop of last season.

A lower level of business activity in many countries, continued decline in the exchange value of foreign currencies, particularly the French franc, and a continuation of the import duties and trade restrictions that were in effect last year are factors tending partially to offset the effect of smaller foreign fruit crops upon foreign demand for United States apples.

Regional Long-Time Production Prospects

Western States

Apple production in the Western States in recent years has been fairly stable at 50,000,000 to 55,000,000 bushels per year. This group of States normally produces about 36 percent of the total United States crop, but in 1937, owing to unusually large production in the Central and Eastern States, it produced only 25 percent of the total supply. The West has been of decided importance in maintaining United States production at a high level at a time when tree numbers were declining rapidly.

In the 11 Western States as a whole, a very small percentage of the trees are yet to come into bearing; and a large percentage of the acreage has reached full bearing capacity. Yield per bearing tree is 3.5 times what it was in 1910 but during recent years the tendency has been toward a smaller increase each year.

Table 6. - Average yearly production of all apples by 5-year periods, number of trees of bearing age, and average yield per bearing tree in the Western States ^{1/}

Item	: 1907-11:	: 1912-16:	: 1917-21:	: 1922-26:	: 1927-31:	: 1932-36:	: 1937	: 1938	^{2/}
Production	:	:	:	:	:	:	:	:	:
million of bushels	: 15.1	: 25.4	: 42.7	: 54.4	: 56.9	: 51.3	: 53.3	: 47.6	
Proportion of U. S.	:	:	:	:	:	:	:	:	
crop percent	: 9.8	: 12.0	: 27.4	: 29.3	: 36.0	: 35.8	: 25.3	: 36.6	
Number of bearing	:	:	:	:	:	:	:	:	
trees ^{3/} millions	: 12.1	: ^{4/}	: 21.2	: 18.3	: 13.4	: 11.6	: -	: -	
Proportion of trees	:	:	:	:	:	:	:	:	
of bearing	:	:	:	:	:	:	:	:	
age ^{3/} percent	: 45.0	: ^{4/}	: 87.2	: 87.2	: 86.6	: 87.8	: -	: -	
Average yield per	:	:	:	:	:	:	:	:	
bearing	:	:	:	:	:	:	:	:	
tree ^{5/} bushels	: 1.25	: ^{4/}	: 2.01	: 2.97	: 4.25	: 4.42	: -	: -	

^{1/} Revised figures as of June 28, 1937 for 1919-35.

Table 1 for the States included.

^{2/} Indicated as of Oct. 1, 1938.

^{3/} For census years, 1910, 1920, 1925, 1930, and 1935.

^{4/} Not available.

^{5/} Obtained by dividing average total production for each 5-year period by number of trees of bearing age in corresponding census year.

Removal continues of trees of unpopular varieties, of old trees, and of orchards on poor locations. Plantings continue to be confined largely to replacements. Production during the last 5 years has averaged somewhat lower than during the previous 5 years, and in the region as a whole is expected to continue downward for several years.

Central States

Annual production of apples in the Central States varies greatly because of great variations in weather conditions. During the 8-year period from 1931 to 1937 production has ranged from a low of about 21,000,000 bushels in 1936 to about 64,000,000 bushels in 1931. The indicated crop of about 24,000,000 bushels in 1938 is only 39 percent of the 1937 production.

Table 7. - Average yearly production of all apples by 5-year periods, number of trees of bearing age, and average yield per bearing tree in the Central States 1/

Item	: 1907-11:	: 1912-16:	: 1917-21:	: 1922-26:	: 1927-31:	: 1932-36:	: 1937:	: 1938 2/
Production -	:	:	:	:	:	:	:	:
millions of bushels:	58.9	87.7	44.8	52.4	36.2	31.3	61.4	23.8
Proportion of U. S. :	:	:	:	:	:	:	:	:
crop percent:	33.3	41.5	28.8	28.7	22.9	21.8	29.1	18.7
Number of bearing	:	:	:	:	:	:	:	:
trees 3/ millions:	90.0	4/	49.2	40.4	34.6	34.1	-	-
Proportion of trees	:	:	:	:	:	:	:	:
of bearing	:	:	:	:	:	:	:	:
age 3/ percent:	73.2	4/	74.9	69.4	69.7	79.1	-	-
Average yield per	:	:	:	:	:	:	:	:
bearing	:	:	:	:	:	:	:	:
tree 5/ bushels:	.65	4/	.91	1.30	1.05	.92	-	-

1/ Revised figures as of June 28, 1937 for 1919-35. See footnote 4 Table 1 for the States included.

2/ Indicated as of Oct. 1, 1938.

3/ For census years, 1910, 1920, 1925, 1930, and 1935.

4/ Not available.

5/ Obtained by dividing average total production for each 5-year period by number of trees of bearing age in corresponding census year.

Plantings were heavy in the Central States after the World War and a relatively large proportion of the trees are young. Recent plantings have been light, and the removal of old trees of undesirable varieties and of farm orchards continues. In general, however, orchards in the commercial sections are being well cared for and the bearing capacity is being maintained. Gradual changes are occurring in the varietal composition of commercial orchards. The tendency is toward fewer varieties and to varieties that are in popular demand. The bearing capacity of orchards in the important summer apple sections is apparently being maintained. In the other commercial sections there is a tendency to replace summer varieties with fall and winter varieties.

Obviously, production during the next several years will depend on growing conditions and, in years when conditions are generally good, crops of 40,000,000 to 60,000,000 bushels may be expected as compared with crops of 25,000,000 to 30,000,000 bushels under poor growing conditions. With average growing conditions, production for the region as a whole can be maintained, and probably increased during the next several years, with moderate annual plantings.

Apple Outlook

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Eastern States

During the 5 years, 1932-36, the Eastern States - which include the New England, the Middle Atlantic, and the South Atlantic States - produced about 60,700,000 bushels of apples per year, or about 7 percent less than average production during the previous 5 years. The crop of 1937 of about 96,000,000 bushels was one of the largest in many years, and the indicated production of 1938 of about 59,000,000 bushels is only slightly less than the 1927-36 average.

Table 8. - Average yearly production of all apples by 5-year periods, number of trees of bearing age, and average yield per bearing tree in the Eastern States 1/

Item	: 1907-11:	: 1912-16:	: 1917-21:	: 1922-26:	: 1927-31:	: 1932-36:	: 1937:	: 1938 2/
Production -	:	:	:	:	:	:	:	:
millions of bushels	: 79.9	: 98.4	: 68.3	: 75.8	: 65.0	: 60.7	: 95.9	: 58.7
Proportion of U. S.	:	:	:	:	:	:	:	:
crop percent:	: 51.9	: 46.5	: 43.8	: 41.5	: 41.1	: 42.4	: 45.5	: 45.1
Number of bearing	:	:	:	:	:	:	:	:
trees 3/ millions:	: 49.2	: 4/	: 44.9	: 45.0	: 40.9	: 33.8	: -	: -
Proportion of trees of:	:	:	:	:	:	:	:	:
bearing age 3/percent:	: 73.2	: 4/	: 73.1	: 76.6	: 79.8	: 84.2	: -	: -
Average yield per	:	:	:	:	:	:	:	:
bearing tree 5/bushels:	: 1.62	: 4/	: 1.52	: 1.68	: 1.69	: 1.65	: -	: -

1/ Revised figures as of June 28, 1937 for 1919-35. See footnote 5, table 1 for the States included.

2/ Indicated as of Oct. 1, 1938.

3/ For census years, 1910, 1920, 1925, 1930, and 1935.

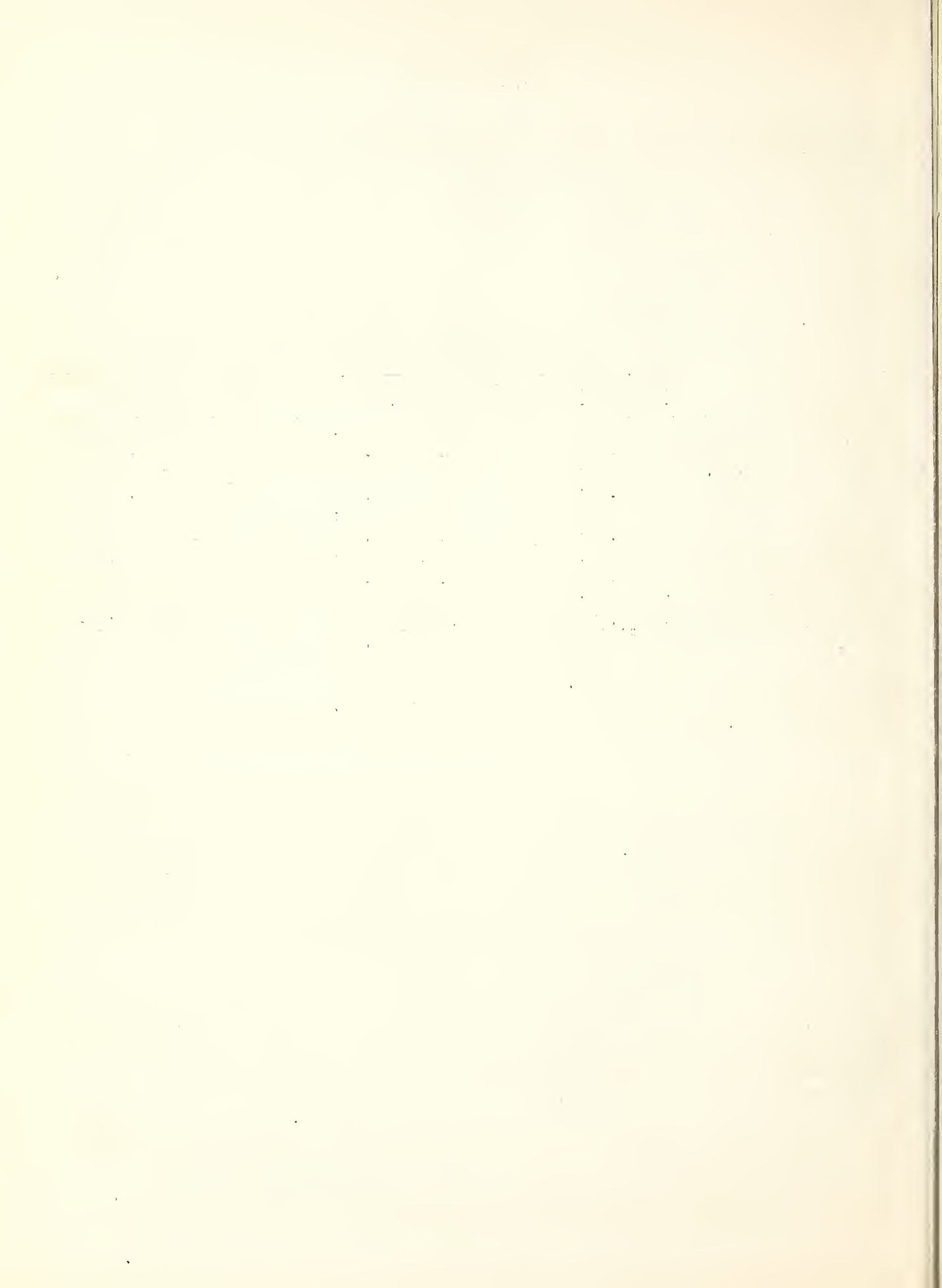
4/ Not available.

5/ Obtained by dividing average total production for each 5-year period by number of trees of bearing age in corresponding census year.

Nearness to large consuming centers gives the Eastern apple grower a decided economic advantage. Consequently, many of the better orchards have received good care in recent years. On the other hand, generally low-producing commercial orchards have received less-than-average care for several years and farm orchards have continued to decrease in number. The severe freeze during the winter of 1933-34 also helped to decrease the potential bearing capacity of many orchards of bearing age, especially of the Baldwin variety. This decrease has been largely offset by increased production from many young orchards of some of the more popular varieties, especially the McIntosh.

Heavy damage to fruit trees from the hurricane of September 21, 1938 was reported. Outside of Maine, where the loss was chiefly limited to the fruit, it is believed that about a fourth of the apple trees in the New England area were damaged and 10 percent lost. In many orchards, the fruiting surface was impaired because of a loss of fruit spurs and small limbs.

The probabilities are that the production trend in the Eastern region, excluding the storm damaged area, will not show a much further decline during the next few years, and only a moderate decrease for some years thereafter. Anticipated decrease in the producing capacity of orchards in the storm damaged area will not materially affect the production trend for the United States, since the area produced only a small percentage of the total crop.



THE PEACH OUTLOOK FOR 1939

Summary

Average annual peach production in the United States in the next 5 years is expected to be somewhat larger than the 1933-37 average of 51 million bushels. Although the outlook for peaches to be marketed as fresh fruit appears to be generally favorable for 1939-43, the danger of over-expansion of the industry should be kept in mind. If planting continues at an equal or greater rate than in recent years, supplies 5 to 10 years hence may be excessive. Even with the present number of bearing trees, in seasons when growing conditions are considerably above average in any area, prices are likely to be unsatisfactory.

Production of clingstone peaches in California has been in excess of market requirements. Large stocks of canned fruit have accumulated and prices to California growers were very low in 1938. Considerable quantities of freestone peaches have been used for canning in recent years.

The anticipated upward trend in United States production is attributed to increased plantings in recent years in most of the important peach-growing regions, and to the fact that orchards generally are in good condition. The production outlook varies considerably among States, in some regions.

Leading States in which a considerable expansion in the peach industry is taking place include Georgia and South Carolina in the South; Illinois, Pennsylvania, Virginia, and West Virginia in the areas marketing principally in August; and Michigan, New York, and Ohio in the Great Lakes region.

Upward Trend In Production In Most Regions

The outlook for peaches must be considered on a regional basis in accordance with the time of ripening, method of use, and marketing area. Most of the peach crop is harvested and marketed in the 4 months from June to September. In most districts the harvesting season lasts only a few weeks and peaches are not stored except for short periods and in limited quantities. Peach prices in any region are influenced to some extent by production and prices of peaches in other regions, especially those that market at about the same time.

Peaches are marketed and distributed chiefly as fresh fruit, except in California, where a large part of the crop is used for canning and drying. Prices are influenced largely by the size and quality of the crop and demand conditions. Seasonal average prices to growers in the fresh-peach regions in the 6 years 1933-38 have ranged approximately from 94 cents to \$1.20 per bushel. In practically all the regions that produce peaches for the fresh-fruit market slight to moderate increases in average production are expected in the next 5 years as compared with the 1933-37 average. In these regions, the 1933-37 average of 30 million bushels was about 10 percent less than in the preceding 5-year period. The total of 58 million peach trees reported in the United States, other than California, in the 1935 census was 13 percent less than in 1930. Many new plantings have been reported since 1935 and orchards generally are receiving good care.

Peach Outlook

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Production and price in the United States other than California

Item	Average			1933	1934	1935	1936	1937	1938 1/
	1923-27	1928-32	1933-37						
Production (million bu.)	32.7	33.5	30.0	23.3	27.0	36.7	26.1	36.5	31.1
Farm price (cents per bu.)	144	101	104	101	94	94	120	114	109

1/ Preliminary.

In California there will probably be little change, but judging from acreage and age of trees the clingstone production may increase slightly. Seasonal average prices to California growers in 1933-38 ranged from 40 to 83 cents per bushel. In 1938, prices were very low chiefly because of the large carry-over of canned stock, and the poor demand conditions.

Production Upward in South

About half of the peach crop of the United States, exclusive of California, is produced in 11 Southern States. The marketing season for southern peaches is from June to early August. For the South as a whole, there was a decrease of about 10 million trees in 1925-35 to approximately 28 million, but production showed only a moderate decrease during this period. Considerable numbers of trees have been planted in the last few years. Since August 1935, nearly 7 million abandoned or diseased trees have been removed and southern orchards are now generally in good condition. Production varies considerably from year to year, but in the next 5 years the average is likely to be slightly above the 1933-37 average of 15,700,000 bushels. The possibility of excessive planting which might result in heavy supplies, and relatively low returns 5 to 10 years hence, should be recognized.

Production and price in 11 Southern States (N.C., S.C., Ga., Fla., Tenn., Ala., Miss., Ark., La., Okla., and Texas)

Item	Average			1933	1934	1935	1936	1937	1938 1/
	1923-27	1928-32	1933-37						
Production (million bu.)	16.9	16.0	15.7	13.5	19.0	17.0	14.6	14.2	16.7
Farm price (cents per bu.)	129	97	99	86	83	90	117	128	98

1/ Preliminary.

In Georgia, the leading fresh-peach State, plantings of the last 2 or 3 years, particularly in the middle Georgia district, are expected to result in larger crops within a few years. A considerable increase is expected in South Carolina. Upward trends in production are also indicated for Alabama and Texas.

Moderate Increase in Illinois and Nearby States

Most of the peaches used in the midwestern markets during August - in years when growing conditions are favorable - are produced in Illinois and nearby States. Because of the climatic conditions the size of the crop varies widely from year to year in this region. In 2 of the last 6 years, production equaled or exceeded 6 million bushels and in 1 year was below 1 million bushels. Farm prices in this group of States have averaged well above \$1 per bushel in each of the last 6 years except 1935. Average production in 1933-37 was only slightly different from the averages of the 2 preceding 5-year periods.

In Illinois and some nearby States, drought in 1934 and 1936 and freezing in the winter of 1935-36 resulted in considerable tree injury. Planting has increased

Peach Outlook

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since 1935 in Illinois and a number of other States in this region and a moderately upward trend is expected.

Production and price in Ind., Ill., Ky., Iowa, Mo., Nebr., and Kans.

Item	Average			1933	1934	1935	1936	1937	1938 1/
	1923-27	1928-32	1933-37						
Production (million bu.)	3.2	3.9	3.5	2.1	2.2	6.3	.5	6.0	2.2
Farm price (cents per bu.)	173	102	106	120	113	93	151	108	125

1/ Preliminary.

Pennsylvania and Nearby States May Increase Production

The principal source of peach supply for the eastern markets in August is the region comprising Pennsylvania, Maryland, Virginia, West Virginia, New Jersey, and Delaware. In this group of States both the number of trees and production declined considerably in 1925-35. There is likely to be a wide variation in size of the crop from year to year in this region. In the 6 years 1933-38, the crop varied from 1.3 million bushels in 1934 to 7.3 million bushels in 1937. In this period seasonal farm prices ranged from \$1.02 to \$1.64 per bushel.

Production and price in Pa., Md., Va., W.Va., N.J., and Del.

Item	Average			1933	1934	1935	1936	1937	1938 1/
	1923-27	1928-32	1933-37						
Production (million bu.)	5.7	5.5	4.2	4.2	1.3	4.7	3.6	7.3	5.0
Farm price (cents per bu.)	152	106	119	114	164	118	145	102	138

1/ Preliminary.

For the region as a whole, increased plantings will probably result in a continued upward trend in production in the next 5 years. In Pennsylvania, Virginia, and West Virginia, the trend of production is upward. In New Jersey the plantings in the last 2 or 3 years have hardly been sufficient to prevent a decline in number of trees.

Peach Industry Expanding in Great Lakes Region

The leading peach-producing States near the Great Lakes are New York, Michigan, and Ohio. There is likely to be wide variations from year to year in the size of the crops in this region. From 1933-38 production varied from less than 1 million bushels in 1934 to nearly 6 million bushels in 1937. Average seasonal prices have ranged from 92 cents to \$1.89 per bushel.

Production and price in New York, Ohio, and Michigan

Item	Average			1933	1934	1935	1936	1937	1938 1/
	1923-27	1928-32	1933-37						
Production (million bu.)	3.6	4.4	3.4	1.9	.9	5.3	3.1	5.8	2.9
Farm price (cents per bu.)	170	107	115	127	180	92	147	104	153

1/ Preliminary.

Growers in the Great Lakes producing regions are reported to be showing considerable interest in peach production and, barring severe injury from freezing and other causes, some expansion of orchards is anticipated. A survey of orchards in New York State in 1936 indicated that over half the trees were under 9 years of age. In Michigan, new plantings have been considerably above replacement needs; and on the better orchard sites in Ohio considerable numbers of trees have been set.

Peach Outlook

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Peaches in New England

The peach industry in New England is of minor importance but there is some production for local markets. In years when weather conditions are favorable, production from the trees now in orchards may considerably exceed the average of 1933-37.

Production and price in New Hampshire, Massachusetts, Rhode Island, and Connecticut

Item	Average			1933	1934	1935	1936	1937	1938	1/
	1923-27	1928-32	1933-37							
Production (million bu.)	.4	.4	.2	.4	---	.1	.3	.3	.3	
Farm price (cents per bu.)	224	155	148	136	179	165	153	150	159	

1/ Preliminary.

Prices per bushel to growers in New England have averaged higher than prices to growers in other regions, but the hazards of production have discouraged any general expansion of the industry.

Slight Increase Expected in Western States

In the Western States, other than California, production in 1933-37 averaged 3 million bushels which was slightly less than in the preceding 5 years. Seasonal farm prices averaged 93 cents per bushel in 1933-37 compared with 95 cents in 1928-32. In Washington and Oregon there may be a slight upward production trend. This group of States is situated at a long distance from leading markets of the United States and the crop is mostly consumed within the region, or nearby.

Production and price in Colo., Idaho, N.Mex., Ariz., Utah, Nev., Wash., and Oreg.

Item	Average			1933	1934	1935	1936	1937	1938	1/
	1923-27	1928-32	1933-37							
Production (million bu.)	2.9	3.3	3.0	1.2	3.6	3.4	4.0	2.9	4.0	
Farm price (cents per bu.)	143	95	93	130	91	92	80	99	71	

1/ Preliminary.

Peaches in California

The total acreage of peach trees in California increased approximately 4 per cent from 1936 to 1938, and indications are that there will be an additional slight increase from 1938 to 1939. Tree damage, particularly in the Sacramento Valley, due to high water in the spring of 1938, reduced what would have been a small gain in total acreage to a very small loss. The outlook for the next 5 years is for the maintenance of acreage at somewhere near current levels.

Acreage of peaches in California

Year	Clingstone			Freestone			All peaches		
	Bearing: Not of			Bearing: Not of			Bearing: Not of		
	age	bearing	Total	age	bearing	Total	age	bearing	Total
	: : age	: : age	: : age	: : age	: : age	: : age	: : age	: : age	: : age
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	acres	acres	acres	acres	acres	acres	acres	acres	acres
1936	41.9	8.7	50.6	39.5	8.0	47.5	81.4	16.7	98.1
1937	41.6	12.5	54.1	40.1	8.8	48.9	81.7	21.3	103.0
1938 1/	38.9	14.2	53.1	40.9	8.4	49.3	79.8	22.6	102.4

1/ Preliminary.

Peach Outlook

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Peaches of both freestone varieties that are used for drying, consumption in fresh form, and canning, and clingstone varieties that are used primarily for canning, are grown in California. For both freestone and clingstone varieties the same proportion of acreage - 17 percent - was not of bearing age in 1936 according to the California Fruit and Nut Acreage Survey. Indicated percentages of acreage of young non-bearing trees in 1939 are 16 percent for freestone varieties and 27 percent for clingstones. Production of clingstone varieties is expected to be slightly larger and production of freestone varieties about the same in the next 5 years, as in 1933-37.

Production and farm price of California peaches

Item	Average									
	1923-27	1928-32	1933-37	1933	1934	1935	1936	1937	1938	1/
	<u>Clingstone</u>									
Production (million bu.)	9.9	15.6	13.8	12.5	11.3	12.0	14.0	15.4	13.5	
Farm price (cents per bu.)	80	57	68	44	64	65	66	94	---	
	<u>Freestone</u>									
Production (million bu.)	7.7	8.2	7.1	7.4	7.1	5.9	7.5	7.9	7.4	
Farm price (cents per bu.)	72	61	61	54	60	64	65	61	---	
	<u>Total</u>									
Production (million bu.)	17.6	23.8	20.9	19.9	18.4	17.9	21.5	23.3	20.9	
Farm price (cents per bu.)	76	59	65	48	62	64	66	83	40	

1/ Preliminary.

Commercially canned peaches accounted for an annual average of approximately 10,258,000 bushels (246,000 tons) of California peaches in 1933-37 or 49 percent of the total production in the State. Peaches used for drying averaged about 5,284,000 bushels (127,000 tons) annually or approximately 25 percent during the period. Canning of freestone peaches increased from 62,500 bushels (1,500 tons) in 1933 to 1,166,000 bushels (24,300 tons) in 1937. In 1933 and 1934 considerable tonnages of clingstones were not harvested because of market conditions. Stocks of canned peaches on June 1, 1938, were reported to be about 6,000,000 cases, approximately 4 times the corresponding quantity in 1937. Prices of peaches for canning in 1938 were very low.

Exports

Approximately 14 percent of the 1933-37 commercial production of canned peaches and 14 percent of the commercial production of dried peaches in California were exported.

Pack and exports of California canned and dried peaches

Period or season 1/	Canned pack		Canned exports		Dried pack		Dried exports	
	1,000 cases 2/		1,000 cases		Tons		Tons	
1921-25 average	7,572		1,321		23,140		3,284	
1926-30 "	12,448		1,846		23,000		3,827	
1931-35 "	8,996		1,687		22,500		3,616	
1933	10,309		1,799		23,400		3,784	
1934	8,598		1,126		25,900		3,175	
1935	11,216		2,307		19,500		3,049	
1936	10,711		1,339		26,300		3,522	
1937 3/	13,248		1,253		22,500		3,174	

1/ July of year shown to June of the following year. 2/ Cases of 24 No. 2 1/2 cans.

3/ Preliminary.

Peach Outlook

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The United Kingdom constitutes the principal foreign market for canned peaches. Dried peaches find their most important markets in France and Canada. Exports of fresh peaches from the United States are of minor importance. Exports of canned, dried, and fresh peaches in terms of fresh fruit averaged about 5 percent of the United States production in 1933-37. Little, if any, improvement in foreign market outlets is expected in the next year.

Number of peach trees in leading regions, census years

Region or group of States	1920	1925	1930	1935
	: 1,000,000 :	: 1,000,000 :	: 1,000,000 :	: 1,000,000 :
	: trees :	: trees :	: trees :	: trees :
N. C., S. C., Ga., Fla., Tenn., Ala., Miss., Ark., La., Okla., and Texas	: 37.7 :	: 38.4 :	: 31.9 :	: 28.2 :
Ind., Ill., Ky., Iowa, Mo., Nebr., and Kans.	: 10.2 :	: 12.3 :	: 11.7 :	: 9.5 :
Pa., Md., Va., W. Va., N. J., and Del.	: 14.5 :	: 11.7 :	: 10.4 :	: 8.7 :
N. Y., Ohio, Mich., Wis., Minn., N. Dak., and S. Dak.	: 10.4 :	: 10.2 :	: 9.5 :	: 8.4 :
New England	: 1.3 :	: .8 :	: .8 :	: .7 :
Mont., Idaho, Wyo., Colo., N. Mex., Ariz., Utah, Nev., Wash., and Oregon	: 2.7 :	: 2.4 :	: 2.9 :	: 2.8 :
United States other than California	: 76.8 :	: 75.8 :	: 67.2 :	: 58.3 :
California	: 10.4 :	: 13.2 :	: 11.9 :	: 8.8 :
Total United States	: 87.2 :	: 89.0 :	: 79.1 :	: 67.1 :

Release Date
November 7, P.M.

THE CHERRY OUTLOOK FOR 1939

Summary

A slight increase in cherry production is indicated for the next 3 to 5 years, although production in a number of States appears to have reached a peak from which production may be expected to level off. Production in the United States during the 5 years 1934-38 averaged approximately 7 percent above the previous 5 years, 1929-33.

During recent years, production in the Eastern States (New York, Pennsylvania, Ohio, Michigan, and Wisconsin), which usually accounts for slightly more than half of the total output of the 12 major cherry States, has shown wider variations than in the Western States (Montana, Idaho, Colorado, Utah, Washington, Oregon and California). The net contribution of the western group has been increasing. The potential contribution of the eastern group, however, appears to be somewhat higher, as the number of bearing trees in the east increased 55 percent from 1930 to 1935, compared with an increase of 26 percent in the west.

On the whole, utilization of cherries has been upward in recent years. With a continuation of this upward trend in utilization, and with business conditions at or above current levels, prices for cherries during the next few years may be expected to hold well above depression levels. But with the present large number of bearing trees and the slight upward trend in production, it is not probable that farm prices will reach the extremely high levels that prevailed before 1929 when output was much smaller relative to consumer demand than it promises to be during the next few years.

Production and Canned Pack in 12 Important Cherry States

Although production fluctuates from year to year, an upward trend has been evident and it is expected to continue during the next few years. Estimated total production for 1938 is approximately 4 percent below 1937, but still 12 percent above the 1929-33 average. This decrease was due to a drop of approximately 42 percent in the eastern production which was not quite offset by an increase of approximately 56 percent in the western production.

Cherry Outlook

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Cherries, all varieties: Production in 12 states, average prices to growers, and canned pack

Year	Production	Aug. price per ton received by growers	Pack (cases No.2)
	Tons	Dollars	Thousands
Average 1929-33	124,740	96.81	2,805
1933	133,840	55.96	3,214
1934	131,180	58.91	2,882
1935	138,040	70.74	3,448
1936	115,160	76.91	2,405
1937	144,720	102.81	3,594
1938	139,140	-	-

The total pack of canned cherries has reflected movements in total production, although the upward movement of the canned product has proceeded at a more rapid rate than total output. The 1937 pack totaled 3,594,000 cases, No. 2 basis, which was 28 percent above the 1929-33 average of 2,805,200 cases. Estimates for the entire 1938 pack of canned cherries are not yet available, but indications are that the 1938 pack of sour or red pitted cherries will be approximately 32 percent below that of 1937. Unless the 1938 pack of sweet cherries was greatly in excess of that of recent years, the total 1938 pack will fall considerably below the level of 1937.

The pack of frozen cherries has risen steadily in recent years, with the 1937 pack totaling approximately 33,000,000 pounds. With low production in the Eastern States, which usually account for over 90 percent of the total, and a large carry-over from the 1937 pack, the 1938 pack of frozen cherries will probably be at least 5 million pounds below the pack of 1937.

Cherries in Cold Storage

Geographic	Sept. 1, 1938	Sept. 1, 1937
	Quick freeze	Cold pack
	1,000 pounds	1,000 pounds
New England	28	423
Middle Atlantic	5,075	16,142
East North Central	168	10,859
West North Central	-	796
Pacific	65	1,550
All other divisions	158	400
United States	5,494	30,170

Cherry Outlook

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The pack of brined cherries, largely concentrated in three States--Washington, Oregon, and California--has shown a sharp upward trend since 1929. It has paralleled the upward trend in the pack of canned fruit cocktail and fruits for salad which constitutes the principal outlet for brined cherries. Thus the average pack of brined cherries during the 4-year period 1934-37 is slightly less than double the pack during the 5-year period 1929-33, while the pack of fruit cocktail and fruits for salad during the latter 4-year period is slightly more than double the pack during the earlier 5-year period. Estimates of the 1938 pack of brined cherries are not yet available, but there are indications that it is not likely to be much in excess of the 1937 pack of approximately 118,000 barrels.

Prices to Growers

Prices received by cherry producers were at high levels during the period 1925-29. In response to the high prices, tree plantings increased sharply, with the result that by 1935 the number of trees of bearing age was approximately 35 percent above the level of 1930. After a sharp drop in 1926, production rose steadily to 1932, after which it tended to level off. But production during the 5 years 1934-38 has averaged over 50 percent above the level which prevailed during the high-price period, 1925-29.

The combination of an expansion of production with depressed business conditions caused prices to fall drastically from 1929 to 1932. Since that year they have recovered gradually, with 1937 farm prices reaching their best level since 1929.

On the whole, the utilization of cherries has been upward in recent years. The per-capita consumption of fresh cherries has tended to remain stable, while the utilization of canned red pitted cherries and of brined and frozen cherries has risen sharply. The utilization of canned sweet cherries has trended downward, with some tendency to level off since 1935.

If there is a continuation of the present upward trend in utilization, and if business conditions are at or above current levels, prices for cherries during the next few years may be expected to hold well above depression levels. But with the present large number of bearing trees and the slight upward trend in production, it is not likely that farm prices will reach the extremely high levels that prevailed prior to 1929 when output was much smaller relative to consumer demand than it promises to be during the next few years.

Eastern Producing States

The bulk of the sour cherry crop is produced in five States--New York, Pennsylvania, Ohio, Michigan, and Wisconsin. These States account for somewhat more than half of the total output of the 12 major cherry states. During the 5 years 1929-33, they accounted for

Cherry Outlook

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approximately 54 percent of the total production, and during the 5-year period 1934-38 for approximately 52 percent. Potential output in the eastern group appears to be somewhat higher than in the western group, as the former contained approximately 52 percent of the trees reported for the 12 states in the 1935 census.

Current indications are for a continuance of a slight upward trend in the production of this group, particularly in New York and Wisconsin. Some of the other states may show more of a tendency to level off.

Production in 5 Eastern States, all varieties

State	Average 1929-33	1933	1934	1935	1936	1937	1938
	Tons	Tons	Tons	Tons	Tons	Tons	Tons
New York	19,094	11,250	20,630	22,910	13,280	21,750	16,360
Sweet	-	1,690	1,260	2,390	1,670	1,770	1,440
Sour	-	9,560	19,370	20,520	11,610	19,980	14,920
Penn.	7,148	5,000	7,720	9,880	5,120	9,890	6,560
Ohio	4,232	4,420	6,070	7,380	1,380	7,340	3,630
Mich.	28,388	34,760	29,900	30,590	29,890	35,840	14,940
Sweet	-	-	1,800	2,510	2,260	2,287	-
Sour	-	-	28,100	28,080	27,630	33,553	-
Wis.	8,374	11,000	7,760	10,820	2,790	13,500	9,440
Total	67,236	66,430	72,080	81,580	52,460	88,320	50,930

Western Producing States

Seven Western States--Montana, Idaho, Colorado, Utah, Washington, Oregon, and California--account for about 90 percent of the commercial production of sweet cherries and for somewhat less than half of total cherry production in the 12 major producing states. Production trended steadily upward during the decade 1924-33 and then sagged somewhat during the 5 years 1933-37. In 1938, however, production rose approximately 56 percent above 1937, with the result that production for the 5 years 1934-38 averages approximately 12 percent above production in the 5 preceding years, 1929-33.

Current reports indicate that, as in the five Eastern States, production will continue to trend slightly upward, although production in some individual states may level off.

Cherry Outlook

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Production in 7 Western States, all varieties

State	Average 1929-33	1933	1934	1935	1936	1937	1938
	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Mont.	620	570	550	500	110	340	470
Idaho	3,026	2,860	2,920	2,950	1,890	1,600	2,490
Colo.	3,332	1,900	5,230	4,010	700	3,460	5,280
Utah	2,936	2,230	2,400	2,200	3,400	2,100	4,270
Wash.	15,300	18,500	18,000	16,000	18,000	13,500	25,500
Oreg.	12,120	16,000	13,000	15,800	15,600	13,800	21,400
Calif.	20,120	25,300	17,000	15,000	23,000	21,600	28,300
Total	57,504	67,410	59,100	56,460	62,700	56,400	88,210

Cherry trees: Number and percentage not of bearing age in the
Eastern States, Western States, 12 States, and the United
States, 1910, 1920, 1930 and 1935

Item	1910	1920	1930	1935
	Number	Number	Number	Number
<u>5 Eastern States</u>				
Not of bearing age	1,102,106	1,128,204	1,940,939	1,365,543
Of bearing age	3,943,969	4,299,193	3,517,828	5,443,881
Total trees	5,046,075	5,427,397	5,458,767	6,809,424
	Percent	Percent	Percent	Percent
Percentage not bearing	22	21	36	20
	Number	Number	Number	Number
<u>7 Western States</u>				
Not of bearing age	1,391,303	622,339	1,532,127	1,091,896
Of bearing age	1,452,198	2,026,562	2,411,081	3,028,835
Total trees	2,843,501	2,648,901	3,943,208	4,120,731
	Percent	Percent	Percent	Percent
Percentage not bearing	49	23	39	26
	Number	Number	Number	Number
<u>12 States</u>				
Not of bearing age	2,493,409	1,750,543	3,473,067	2,457,439
Of bearing age	5,396,167	6,325,755	5,928,909	8,472,716
Total trees	7,889,576	8,076,298	9,401,976	10,930,155
	Percent	Percent	Percent	Percent
Percentage not bearing	32	22	37	22
	Number	Number	Number	Number
<u>United States</u>				
Not of bearing age	5,621,660	3,694,531	4,615,286	3,746,569
Of bearing age	11,822,044	10,787,751	8,381,472	11,327,435
Total trees	17,443,704	14,482,282	12,996,758	15,074,004
	Percent	Percent	Percent	Percent
Percentage not bearing	32	26	36	25

THE PEAR OUTLOOK FOR 1939

Summary

Pear production in the United States is continuing its upward trend chiefly because of increasing production in the three Pacific Coast States. The combined production in regions other than the Pacific Coast area probably will expand only slightly in the next few years.

New plantings of pear trees are very small. A large number of young trees reaching full bearing age, however, will cause an increase in production for a number of years. Orchards in the Pacific Coast States and in Michigan have generally been given good care during the 1937-38 season and abandonment has been negligible. Neglect has been general in other commercial areas in the Eastern States and in regions where pear production is relatively unimportant.

Prices paid to growers since the beginning of the 1938-39 season have been considerably below those of last year. The largest crop on record and somewhat less favorable demand conditions at the outset of the season are the major reasons. Gradually improving demand conditions, however, are in prospect for the remainder of the season. In general, prices for pears have improved somewhat from the low point reached in 1932. Considerable difficulty is being experienced, however, in disposing of continually increasing production at prices satisfactory to growers.

Exports of fresh pears have been increasing for a number of years and in 1938-39 will about equal or slightly exceed those of the preceding season. Canned and dried pear exports may show a slight increase over those of the 1937-38 season. Smaller European pear crops this year, large supplies in the United States, and the possible conclusion of trade agreements, are favorable factors in the outlook for pear exports for the 1938-39 season. Trade restrictions, increasing foreign production of dessert varieties, a gradual improvement in the quality of foreign pears, and a lengthening of the marketing season by a more extensive use of cold storage in foreign countries will not permit a substantial increase in exports of United States pears in the near future.

Production Continues Upward

Pear production has been increasing since the turn of the century and is expected to continue its upward trend for a number of years, although at a somewhat slower rate. The increase during the last 20 years took place chiefly in the three Pacific Coast States which in the future also will contribute most to the further increase in production in the United States. Pear production on the Pacific Coast increased from an average of 42 percent of the total United States production of pears for the period 1919 to 1923 to an average of 65 percent for the period 1934 to 1938.

Production in the East North Central States, specifically in Michigan, has shown an increasing tendency recently and is likely to continue this increase at a moderate rate. The major part of pear production in the Eastern States, however, originates in the Middle Atlantic region, chiefly in New York, where the decline in production experienced during the last 20 years is likely to continue to a lesser degree. In other regions of the United States, pear production at present is relatively unimportant and will continue to be mainly of local significance.

The 1938 pear crop of nearly 32 million bushels sets a new all-time record, exceeding the 1937 production by over 7 percent and the 5-year average production 1933 to 1937 by 20 percent. The Pacific Coast States produced over 21 million bushels or more than two-thirds of the total production of pears in 1938.

(Table I)

Almost three-fourths of the pears produced on the Pacific Coast on the average of the 5-year period 1933 to 1937 were of the Bartlett variety. In California about 14 percent, in Oregon 58 percent, and in Washington 26 percent of the average production consisted of other than Bartlett pears, namely, the so-called fall and winter, or late dessert varieties of pears. The major varieties in this classification produced on the Pacific Coast are, in the order of their importance, the Beurre D'Anjou, Beurre Bosc, Winter Nelis, Beurre Hardy, and Doyenne du Comice.

Production of Bartlett pears during the last 10 years has not increased materially on the Pacific Coast except in Washington. While increased production is to be expected in this State in the near future because of a large number of trees reaching the full bearing age, the increase in Bartlett pear production in the three States combined will only be slight. Fall and winter pear production on the Pacific Coast, on the other hand, increased 22 percent during the last 10 years and is expected to continue its upward trend at the same if not a faster rate, particularly in Oregon and Washington. Plantings of late varieties of pears have been small in recent years but the fact that a large number of trees, especially of the D'Anjou variety, are not yet in bearing and two-thirds or more of all late pear trees standing have not reached the age at which the yield per tree is highest indicates a rapid increase in production in the near future.

(Table II)

Pear production in the Eastern States, except in New York and Michigan, is of minor commercial importance and consists largely of the Kieffer variety. In western New York, Bartlett pears make up a relatively large proportion of the crop, while in the Hudson River Valley, Kieffer pears predominate. The production of Seckel, Clapp's Favorite, and Beurre D'Anjou varieties in this State is small and, together with that of several other minor varieties, does not exceed 20 percent of the total. In Michigan, Bartlett and Kieffer are the leading varieties, while Clapp's Favorite, Beurre Clairgeau, Beurre Bosc, and Beurre D'Anjou are of minor importance. Production in this State has been increasing in recent years and is expected to continue this upward trend.

Utilization: Fresh, Canned, and Dried

The major types of utilization of pears are - in the order of their importance - fresh consumption, canning, and drying. Only the Bartlett variety is utilized through all three of these outlets. Kieffer pears are used predominantly in home and commercial canning and preserving. The late dessert varieties are used for fresh consumption only.

During the last 5 years an average of more than 5 million cases of pears have been canned. In terms of fresh pears, this outlet used on the average of the 1933 to 1937 seasons approximately 138,000 short tons of fresh pears. In addition, approximately 17,000 tons of fresh pears were used in canned fruit cocktail and fruits for salad. Of the 1937 pear crop, a total of 152,000 short tons were utilized as canned pears and in other canned-fruit mixtures. The total quantity of pears used in canning during the 1938 season will be only slightly larger than that used in the 1937 pack, but a somewhat larger proportion of the total pack will consist of pears used in canned fruit cocktail and salad.

(Table III)

The drying of pears takes place in California only. During the 5-year period, 1933-37, an average of more than 32,000 tons of fresh Bartlett pears were dried, an increase of 23 percent over the preceding 5-year period. During the 1937 season a relatively small quantity of pears was dried - around 20,000 tons. It is expected that during the current season a somewhat larger volume will be so utilized.

In spite of gradually increasing quantities of pears utilized in canning and drying, the volume of pears available for fresh consumption has been larger from year to year because of the rapid rise in production. As the canning and drying outlets are not expected to fully absorb increased production in the future and as the late dessert varieties that are increasing most rapidly in production cannot be diverted from fresh consumption into these outlets, increased production will be marketed chiefly in fresh form.

Gradual Decline in Number of Pear Trees

The number of pear trees in the United States has decreased considerably since 1900. The decrease occurred in all eastern producing areas offsetting a rapid increase in plantings in the Pacific Coast States. The decrease in the Eastern States and the increase in plantings in the Pacific Coast States has shifted the commercial pear industry of the United States from the east to the west and has brought about a greater specialization in production, accompanied by a higher average yield per tree. The period of rapid expansion in plantings in the three Pacific Coast States, which began in the 1920's is concluded. No appreciable number of trees have been planted in this area in recent years.

(Table 1V)

In spite of discouraging returns to growers, orchards on the Pacific Coast during 1938 have been given good care. In Michigan, orchards are generally in good condition. New plantings mainly of the Bartlett and Kieffer varieties are increasing. In other Eastern States, trees in general have not been well taken care of and as new plantings are very small the total number of trees is gradually declining.

1938 Prices Opening Low

Prices for pears have advanced somewhat from the lowest point reached during the 1932 season. In 1937, the average price to growers was 66 cents per bushel, which is slightly below the average price during the 1936 season. Prices paid by canneries for No. 1 canning Bartletts during 1937 were \$25 per ton---the same as in the preceding year.

(Table V)

For the 1938 season, prices to growers on September 15 indicated a much lower level, which in California is indicated to be below prices of the same date in 1932. Cannery prices were about \$15 per ton for No. 1 canning Bartletts, also a much lower price than during the preceding year and almost the same as in 1932.

Pear-Marketing Programs

The means that have been employed in the various pear-marketing programs are, first, regulations that are designed to protect quality products from the price-depressing effects of the sale of low-grade or otherwise undesirable fruit; second, regulations adjusting the offerings of fruit to changing market demand and bringing about an orderly marketing procedure; and finally, diversion payments for the developments of new markets that offer an outlet for the increasing volume of production.

Even before 1934, growers of Bartlett pears in California attempted to control the size of pears to be shipped in interstate commerce by voluntary agreement. During the 1934 season a voluntary proration of shipments was agreed upon. In 1935 grade and size regulations and proration of shipments were begun under a marketing agreement and order. This agreement was in effect through the 1937 season. A marketing agreement for Bartlett pears has not been in operation during the 1938 season, but shipping holidays were agreed upon voluntarily by the industry, which by this means intended to reduce excessive supplies in the markets. A Pacific Coast marketing agreement for the major varieties of fall and winter pears was inaugurated in October 1938.

In addition to these shipping regulations, purchases of fresh pears for relief distribution were made during the 1936 and 1937 marketing seasons. These purchases are made to prevent major price declines at critical times during the season by removing excessive supplies.

Another type of marketing program---a so-called diversion program was in effect for Pacific Coast fall and winter pears during the 1936 and 1937 seasons and is being continued during the current season. When supplies of the late dessert varieties became so large that even the better grades could not be sold in the old-established markets without a substantial reduction in price, the industry with the assistance of the Government proposed to develop new markets in areas that formerly did not receive any or received insufficient quantities of late pears.

Export Situation

About 5 million bushels of fresh pears or their equivalent, or somewhat less than one-fifth of the total production of pears in the United States, have been exported in recent years. During the 1937-38 season total exports declined slightly in volume as well as in percentage of production. Exports of fresh pears account for about 50 to 55 percent of the total exports, while the exports of canned pears account for 25 to 30 percent, those of dried pears 10 to 15 percent, and the exports of pears in various fruit mixtures from 7 to 9 percent of the total exports on the fresh fruit basis.

Exports of fresh pears have shown an upward trend during the last 15 years. This increase, however, has not been accomplished without a substantial reduction in price. Total fresh exports during the 1937-38 season amounted to 2,694,000 bushels and are the largest on record. Approximately 74 percent of the total were shipped to European countries. The quantity exported to all other continents was about 170,000 bushels smaller than during the preceding season when a record volume of 853,000 bushels were exported to countries outside of Europe.

Exports of canned pears amounting to 1,183,000 cases during the 1937-38 season have continued their downward trend. Between 90 and 95 percent of the total canned-pear exports are shipped to the United Kingdom while the remainder is divided into small quantities that are sold in many other countries. Exports of dried pears during the 1937-38 season amounted to 2,789 short tons and were nearly 900 tons less than during the preceding season. France, United Kingdom, Sweden, Netherland, and Canada are the chief markets, in the order named. The exports of pears in dried and canned fruit mixtures, which during the 1937-38 season amounted to approximately 386,000 bushels of fresh pears, were slightly larger than those of a year ago.

(Table VI)

Indications are that the exports of fresh pears during the 1938-39 season will equal or slightly exceed those of the past season. Exports of canned and dried pears probably will be slightly larger than those during the 1937-38 season. Supplies of fresh, canned, and dried pears in the United States this year are large while crops in the major European countries are considerably lighter than last year. On the other hand, political disturbances, trade restrictions, increasing competition from fresh exports originating in South Africa, Argentina, Australia, and New Zealand, improvement in the quality of foreign pears, and an increased use of cold storage will prevent a substantial increase of pear exports during the current season.

(Table I)

Pears: Production by Principal Regions

1919 to 1938/1

Crop Year	: Middle : Atlantic : States/2	: South : Atlantic : States/2	: East North : Central : States/2	: Pacific : Coast : States/2	: Others	: Total
	1	2	3	4	5	6
	- - - <u>1,000 bushels</u> - - -					
Average --						
1919-1923	3,022	1,144	1,464	6,751	3,868	16,249
1924-1928	2,446	1,207	1,695	12,758	2,559	20,665
1929-1933	1,882	1,081	1,975	16,415	2,879	24,232
1934-1938/1	2,179	1,387	3,176	18,204	3,238	28,184
1936	1,887	1,394	2,194	18,952	2,529	26,956
1937	2,178	1,334	4,001	18,484	3,551	29,548
1938	2,700	1,638	2,953	21,354	3,134	31,779

/1. Data for 1938 are preliminary and subject to revision.

/2. The states included in each of the principal regions and the percentage of their average 1919 to 1938 production within the region (given in parenthesis behind the name of the state) are as follows:

Middle Atlantic States, New York (69), New Jersey (7), Pennsylvania (24);

South Atlantic States, Delaware (5), Maryland (12), Virginia (26), West Virginia (5), North Carolina (19), South Carolina (8), Georgia (19), Florida (6);

East North Central States, Ohio (23), Indiana (14), Illinois (24), Michigan (39), Wisconsin (0);

Pacific Coast States, Washington (26), Oregon (17), California (57).

(Table II)

Pears: Pacific Coast production by States and varietal groups,

average 1928-1932 and 1933-1937

Period and Varietal Group	California		Oregon	
	: Percentage :		: Percentage :	
	: Production : by varietal :		: Production : by varietal :	
	: groups :		: groups :	
	1	2	3	4
	1,000 bushels	percent	1,000 bushels	percent
<u>Average 1928-1932</u>				
Bartletts	8,379	87.9	1,365	47.6
Other Varieties	1,155	12.1	1,490	52.2
Total	9,534	100.0	2,855	100.0
Percentage by States	58.5		17.5	
<u>Average 1933-1937</u>				
Bartletts	7,746	86.4	1,342	41.6
Other Varieties	1,221	13.6	1,884	58.4
Total	8,967	100.0	3,226	100.0
Percentage by States	51.9		18.7	

Period and Varietal Group	Washington		Pacific Coast	
	: Percentage :		: Percentage :	
	: Production : by varietal :		: Production : by varietal :	
	: groups :		: groups :	
	5	6	7	8
	1,000 bushels	percent	1,000 bushels	percent
<u>Average 1928-1932</u>				
Bartletts	2,922	74.5	12,666	77.7
Other Varieties	998	25.5	3,643	22.3
Total	3,920	100.0	16,309	100.0
Percentage by States	24.0		100.0	
<u>Average 1933-1937</u>				
Bartletts	3,754	73.9	12,842	74.3
Other Varieties	1,327	26.1	4,432	25.7
Total	5,081	100.0	17,274	100.0
Percentage by States	29.4		100.0	

(Table III)

Pears: Canned pack and fresh fruit equivalent

1933 to 1937

Year	Canned Pear Pack			Canned fruit
	Total	Pacific Coast	Pacific Coast	cocktail
			in percent	and
			of total	salad
	1	2	3	4
	<u>actual cases</u>	<u>actual cases</u>	<u>percent</u>	<u>actual cases</u>
1933	4,997,203	4,542,639	90.9	2,281,257
1934	6,163,362	5,709,595	92.6	2,549,575
1935	4,766,874	4,409,740	92.5	2,990,454
1936	6,104,365	5,576,021	91.3	3,621,994
1937	5,115,962	4,534,911	88.6	4,408,805
Av. 1933-1937	5,429,553	4,954,581	91.2	3,170,417

Year	Fresh Fruit Equivalent			
	Canned	Fruit	Fruits for	Total
	pears/1	cocktail/2	salad/2	
	5	6	7	8
	<u>short tons</u>	<u>short tons</u>	<u>short tons</u>	<u>short tons</u>
1933	127,300	4,600	8,200	140,100
1934	157,200	6,000	8,300	171,500
1935	120,600	8,400	8,000	137,000
1936	154,400	11,100	8,800	174,300
1937	128,300	16,100	7,500	151,900
Av. 1933-1937	137,600	9,200	8,200	155,000

- /1. Actual cases converted to standard cases of 24 No. 2-1/2 cans; 38 standard cases per ton of fresh fruit rounded to the nearest hundred tons.
- /2. Actual cases converted to standard cases of 24 No. 2-1/2 cans; fresh pears required in fruit cocktail 10 pounds per standard case of 24 No. 2-1/2 cans, in fruits for salad 12 pounds per standard case of 24 No. 2-1/2 cans.

Pear Outlook

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(Table IV)

Pear Trees: Total bearing and non-bearing trees by
Census years, and the Percentage of trees of
bearing and non-bearing Age

Year	All Ages	Bearing Age	Non- bearing age	Percentage of bear- ing age	Percentage of nonbear- ing age
	1	2	3	4	5
	- - - 1,000 trees - - -			- - percent - -	
1900	<u>/1</u>	17,716	--	--	--
1910	23,975	15,171	3,804	63.3	36.7
1920	20,700	14,648	6,052	70.8	29.2
1925	23,198	<u>/2</u>	--	--	--
1930	21,271	16,043	5,228	75.4	24.6
1935	19,436	16,695	2,741	85.9	14.1

/1. Only trees of bearing age were supposed to be tabulated but
probably some non-bearing trees were included.

/2. Only the total number of trees were reported.

Source of data: Compiled from Census Reports rounded to thousands.

Pear Outlook

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(Table V)

Pears: Average prices to growers by principal States

1930 - 1938

Region	: 1930	: 1931	: 1932	: 1933	: 1934	: 1935	: 1936	: 1937	: 1938
	1	2	3	4	5	6	7	8	9
- - dollars per bushel - -									
<u>United States</u>									
Crop Year	0.75	0.60	0.39	0.55	0.70	0.63	0.67	0.66	
Sept. 15	0.86	0.78	0.55	0.60	0.78	0.74	0.91	0.86	0.54
<u>New York/1</u>									
Crop Year	0.90	0.90	0.46	0.85	0.85	0.90	0.60	0.95	
Sept. 15	0.95	1.00	0.46	0.95	1.00	1.10	1.05	1.10	0.70
<u>Illinois & Michigan</u>									
Crop Year	1.00	0.55	0.60	0.75	0.60	0.60	0.77	0.60	
Sept. 15	1.10	0.70	0.62	1.00	0.77	0.77	0.92	0.77	0.82
<u>Oregon & Washington</u>									
Crop Year	0.75	0.60	0.35	0.42	0.60	0.52	0.65	0.65	
Sept. 15	0.67	0.65	0.41	0.50	0.67	0.57	0.82	1.00	0.45
<u>California</u>									
Crop Year	0.55	0.58	0.50	0.51	0.77	0.68	0.63	0.60	
Sept. 15	0.70	0.80	0.60	0.50	0.80	0.80	0.95	0.65	0.40
- - dollars per short ton - -									
For Canning	30.00	20.00	14.00	17.00	35.00	28.50	25.00	25.00	15.00

/1. Prices in New York State were considered the most significant of the Middle Atlantic States--New York, Pennsylvania, and New Jersey.

(Table VI)

Pears: Total volume of exports and value per bushel of fresh exports, average 1930 to 1934, 1935, 1936, 1937 Seasons

Season	Pear Exports in Fresh Fruit Equivalent			Total Ex-ports in Percent of Production	Total Value of Fresh Exports	Unit Value of Fresh Exports
	Fresh	Canned,	Total			
		Dried and				
		Fruit Mixtures				
1	2	3	4	5	6	
- - -	<u>1,000 bushels</u>	- - -	<u>percent</u>	<u>1,000 dollars</u>	<u>dollars per bu.</u>	
1930-31 to 1934-35	2,228	2,509	4,737	18.7	4,410	1.98
1935-36	2,483	2,853	5,336	21.1	4,801	1.93
1936-37	2,626	2,422	5,048	18.7	4,867	1.85
1937-38	2,694	2,127	4,821	16.3	5,031	1.87



Release Date
November 7, P. M.

THE GRAPE OUTLOOK FOR 1939

Summary

Average production of grapes in the United States during the next few years is likely to be larger than the 1927-36 average of 2,197,000 tons, but smaller than the average of 2,649,000 tons produced in 1937 and 1938. The carry-over of grape products (raisins, wine, and brandy) into the 1938 season was extremely large and, unless consumption of these products during 1938-39 is increased materially over present expectations, inventories of these products at the beginning of the 1939-40 season will also be large.

Preliminary estimates indicate that the 1939 bearing acreage in California will be about 494,000 acres divided according to varieties (based upon principal use) as follows: raisin varieties 240,000 acres, wine varieties 173,000 acres, and table varieties 81,000 acres. Although the acreage of bearing grape vines in California during the next few years will be smaller than the average acreage for the 10 years 1927-36, the average annual production from this smaller acreage will probably exceed the 1927-36 average production of 1,929,000 tons, but may be less than the average of 2,395,000 tons for the bumper crops of 1937 and 1938. This larger than average production from a smaller than average acreage is expected because moisture conditions and age and general condition of vines will probably give higher yields per acre than the 1927-36 average.

With large supplies of grape products on hand from the 1937 crop and with a large 1938 crop in prospect, proration plans to help support prices have been developed for raisins and winery grapes from the 1938 California production. Under these programs restrictions are placed upon the marketable supplies of raisins and the quantities of grapes used in the commercial production of wine in California. Loans of \$50 per ton have been made available to growers on at least two-thirds of the expected raisin production, thus tending to support farm prices at about that level during the present marketing season. A minimum price to growers of \$15 per ton (less assessments totaling 60 cents per ton) has been set on grapes delivered for production of commercial wine. The plan further provides for the manufacture of surplus grapes into beverage and high proof brandy, production and storage in a surplus pool to be financed by a loan from the Reconstruction Finance Corporation and from California commercial banks.

There has been no pronounced trend in the acreage of grapes in the principal producing regions outside of California, although some decline may occur in the next few years. Production of grapes outside California during the next few years will probably average slightly less than the 1927-36 average of 268,000 tons. Reports from all regions, excluding California, indicate few plantings in recent years.

Bearing Acreage and Probable Production of California Grapes

The total bearing acreage of California grapes was estimated in 1938 at 489,400 acres, 7,700 acres more than in 1937. A slight upward trend in bearing acreage is expected to continue for the next few years, and the bearing acreage in 1939 may be nearly 494,000 acres. This indicated acreage, however, is smaller than the 1927-36 average of about 544,000 acres.

Divided according to varieties of grapes (segregation of varieties based upon principal use), the 1939 bearing acreage is estimated as follows: raisin varieties, 240,000 acres; wine varieties, 173,000 acres; and table varieties, 81,000 acres.

An estimate of the probable production of grapes from this bearing acreage during the next few years is extremely difficult because of the possibility of extreme variation in yields. The yield per acre of all California grapes was extremely heavy in 1937, and is indicated to be almost as large in 1938. In 1937 the average yield per acre of all grapes was 5.1 tons and the indicated yield per acre in 1938 is 4.8 tons, compared with an average of 3.6 tons per acre in the preceding 10-year period. It is not probable that yields during the next few years will average as high as those of the last two seasons, but there are indications that they will average higher than the 1927-36 average. The wet weather in California in 1937 and 1938 has built up moisture reserves. Vines are generally older now and their bearing capacity is greater. The general condition of vines at the present time appears to be somewhat better than during at least part of the 1927-36 period. It is also likely that considerable of the reduction in grape acreage has been of vineyards on land giving very low yields. It would seem, therefore, that the average annual production of California grapes during the next few years will exceed the 1927-36 average production of 1,929,000 tons, but may be less than the indicated average of 2,395,000 tons for the bumper crops of 1937 and 1938.

California Raisins

The crop year 1937-38 was a difficult one for the California raisin industry. The total pack of raisins from the large 1937 crop was 247,000 tons (equivalent of nearly 1 million tons of fresh grapes). This, added to the September 1 unshipped carry-over of about 50,000 tons from the preceding season, made a total supply of about 297,000 tons in the fall of 1937. Exports during the season totaled about 76,700 tons (equivalent sweat-box weight), or considerably larger than the average of recent years. Disappearance into regular domestic consuming channels, affected by the sharp reduction in consumer purchasing power during the season, totaled only about 120,000 tons, and in the summer of 1938 it appeared that about 100,000 tons of raisins would be carried over into the 1938 season. However, subsequent purchases for relief distribution by the Federal Surplus Commodities Corporation reduced the unshipped carry-over to approximately 75,000 tons in packers' hands, plus 10,000 tons bought for relief purposes but not yet shipped on September 1, 1938.

Proration plan formed for 1938-39

The large carry-over of 1937 raisins and the prospective large 1938 crop of raisin varieties resulted in the formulation of a proration plan for the 1938-39 season. A commitment of \$9,000,000 on the 1938 crop was obtained in August from the Commodity Credit Corporation to provide a non-recourse loan of \$50 a ton on 180,000 tons of the 1938 crop if needed. Under the terms of the plan, 20 percent of each grower's crop, whether Government financed or not, must be consigned to the surplus pool controlled by the Raisin Proration Association, and is not to be sold until the marketable portion of the 1938 crop has been disposed of. Loans may be made on the salable portion of the individual grower's crop up to June 1, 1939 and a grower may withdraw raisins on which such a loan has been made at any time before that date by repaying the amount of the loan plus accrued charges and interest at 4 percent per annum. All the raisins pledged as security for loans not liquidated by June 1, 1939, will be pooled, to be sold by the Raisin Proration Association, and those unsold by October 31, 1939 will be pooled with the surplus and taken over by the Commodity Credit Corporation for the amount of the loan. If the proceeds from the pool exceed the amount of loans advanced, the difference will be distributed among the growers.

In making the above commitment, the Commodity Credit Corporation specified that the supply of unbleached raisins available for marketing during 1938-39 be restricted to 270,000 tons. This does not include 20,000 tons of bleached raisins over which no control is required. Preliminary trade estimates made before some recent damage by rain and sand, indicate that the total 1938 raisin production may amount to about 250,000 tons, which, together with the carry-over, would result in a total supply of about 325,000 tons (excluding 10,000 tons of raisins purchased for relief but not shipped). Thus, about 35,000 tons would be put in the surplus pool. None of these surplus pool raisins could enter regular marketing channels before October 31, 1939, however, even though the Commodity Credit Corporation loan were paid off before that date, since the prorate plan requires that surplus pool raisins be diverted from regular market channels. Raisins in the surplus pool on hand October 31, 1939, however, must be considered a part of the 1939-40 total raisin supply.

Carry-over of raisins into 1939-40 season likely to be large

A carry-over into a new season of 45,000 tons of raisins is ordinarily not considered in excess of trade requirements. But in order to reduce the total carry-over into the 1939-40 season to this figure, the disappearance into regular trade channels and for relief and diversion to byproducts during 1938-39 must total 280,000 tons; 65,000 tons more than disappearance in 1935-36, 80,000 tons more than in 1936-37, and about 55,000 tons more than in 1937-38 (including relief purchases).

Foreign demand for California raisins is not likely to be as good during the 1938-39 season as in 1937-38. Preliminary estimates indicate an increase of 41 percent in foreign production of raisins and currants over the relatively small crop of the previous season. A further unfavorable factor is

Grape Outlook

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the reduction from a year earlier in industrial activity in many of the foreign countries that provide a market for our raisins.

The prospective improvement in consumer incomes during the latter part of 1938 and in 1939 is a favorable factor in the outlook for domestic demand for California raisins. It is doubtful, however, whether such improvement will be sufficient to raise the average level of domestic demand for the 1938-39 season materially above that of the 1937-38 season.

At present it does not seem probable that sales of raisins in 1938-39 will be sufficiently large to prevent a rather large carry-over into the 1939-40 season. But the loan by the Commodity Credit Corporation will support prices to growers, and it is probable that prices received by growers for the free tonnage sold to packers in 1938-39 will be at least as high as the loan of \$50 per ton. The returns to growers for the tonnage placed in the surplus pool, however, cannot be foreseen.

California Winery Grapes

With large inventories of wine and brandy on hand from the large 1937 crush, and with extremely large supplies of 1938 grapes in prospect for use in the production of wine, grape growers were faced with the probability of very low grape prices. In an attempt to meet this situation, growers and vintners developed a price supporting plan for the California wine industry. Developments under this plan are exceedingly important in regard to prices received by growers for 1938 grapes and as factors affecting the outlook for grapes in the next several years. The plan involves 5 points as follows:

1. A statewide prorate for grapes to be used for wine.
2. A program to finance the crushing of surplus grapes under the prorate.
3. A marketing program for wine - primarily for the purpose of conducting an advertising and sales-promotion program for California wines.
4. Audit of winery costs and establishment of an organization to facilitate enforcement of the California Unfair Practice Act.
5. Development of Trade Practice Rules under the Federal Trade Commission.

Program to Divert Surplus Grapes to Brandy

It has been estimated that from 800,000 to 1 million tons of grapes will be sent to wineries by California growers in 1938. According to preliminary estimates of the Grape Prorate Program Committee, this tonnage will be utilized

in the following way:

1. Fifty-five percent, or from 440,000 to 550,000 tons is to be used by wineries in the commercial production of wine and beverage brandy. A minimum price of \$15 a ton, with modification for sugar content for grapes delivered for this purpose has been agreed to by wineries crushing a large majority of the wine grapes. Growers are permitted to bargain for higher prices. Assessments of 50 cents a ton for advertising and 10 cents a ton for administrative expenses will be made by the Grape Prorate Program Committee, leaving the growers a net of \$14.40 a ton.

2. Thirty percent, or from 240,000 to 300,000 tons, will be manufactured into surplus beverage brandy. This brandy supply will be held by the Grape Growers Products Association and liquidated in subsequent years. For grapes used for this purpose growers will receive \$12.50 per ton minus 50 cents for advertising and 10 cents for administrative costs. Any profits from the sale of the brandy, over costs of production, storage, etc., would be paid to growers in proportion to tonnage delivered.

3. Fifteen percent, or from 120,000 to 150,000 tons, is to be converted into surplus high-proof brandy. Nothing is to be paid to growers for the grapes delivered for this purpose except any profits that may be realized upon sale of brandy. Assessments of 50 cents per ton for advertising and 10 cents per ton for administrative costs will also be made on these grapes.

To finance payments to growers for diversion of grapes into production of beverage and high-proof brandy as outlined under 2 and 3 above, a loan commitment in excess of \$7,000,000 has been obtained, half from the Reconstruction Finance Corporation and half from California commercial banks. The stocks of beverage and high-proof brandy will be pledged as security for the loan.

Wine Consumption in 1938-39 Likely to be Larger than in 1937-38

The upward trend in wine consumption, which was evident from Repeal of Prohibition in 1933 to November 1937, did not continue during the second half of the 1937-38 marketing season. Reduced consumer purchasing power during this period was the important factor that kept tax-paid withdrawals each month from December 1937 to May 1938 slightly below withdrawals for corresponding months a year earlier. In June 1938, however, tax-paid withdrawals of wine were a little above those of June 1937, and it is probable that improvement in consumer incomes during 1938-39 will bring tax-paid withdrawals of wine during this period up to or above withdrawals in 1937-38.

If the proportion of dry and fortified wine produced in 1938 is the same as the average of the last two seasons, the 440,000 to 550,000 tons of grapes expected to be crushed in 1938 would produce a total of from 44 million to 55 million gallons of wine. Since the disappearance of California wine into consuming channels during 1938-39 probably will be at least as much as 55 million gallons and possibly somewhat more, it is probable that stocks of California wine on hand June 30, 1939 will not be quite so large as the extremely large stocks on hand June 30, 1938. In addition, however, there will be on hand the high-proof brandy produced under the diversion program, which will eventually be used in the production of wine.

From 8 million to 10 million gallons of beverage brandy will be produced from the 240,000 to 300,000 tons of surplus grapes diverted to this purpose. This, plus the 4 million proof gallons of beverage brandy on hand June 30, 1938 will make a total supply of beverage brandy more than 8 times as large as the total disappearance into consumption of beverage brandy for 1937-38. It is planned that the 1938 production of beverage brandy will be held by the Grape Growers Products Association for at least 4 years and then released gradually in such a way as to minimize the price-depressing influence of so large a supply.

California Shipping Grapes

California grapes shipped fresh to eastern markets are used in either of two ways - as fresh table stock or as juice stock. No special prorate is planned for these grapes in 1938, but under the program as outlined in the preceding sections the difference between the total crop and the allotments for raisins, wine and brandy will be available for fresh shipment. If the final crop outturn is as indicated on October 1, and if the utilization for raisins and wine is within the limits as tentatively announced by the Grape Prorate Committee, this quantity would be no greater than 522,000 tons, and probably somewhat less. This compares with 547,000 tons used fresh in 1937, 490,000 tons in 1936, 495,000 tons in 1935, 488,000 tons in 1934, and 455,000 tons in 1933.

The demand for fresh shipping grapes is directly dependent upon consumer purchasing power, and the low level of purchasing power in the fall of 1938 is reflected in the low prices being received for California grapes in eastern markets. Any improvement in consumer incomes in the next few years will be important in affecting prices of shipping grapes, but the supply of these grapes will continue to be affected by the supply of and demand for grapes for other purposes.

Grapes in Other States

There has been no pronounced trend in the total grape acreage in the principal producing regions outside California, although some decline may occur in the next few years. Production of grapes outside California during the next few years will probably average slightly less than the 1927-36 average of 268,000 tons. Indicated production for 1938 of only 185,000 tons follows a large crop of 323,000 tons produced in 1937.

In recent years an average of approximately 10 percent of the eastern grape crop has been used by commercial concerns for making wine and about the same percentage for unfermented grape juice. Allowing for small quantities used by commercial preserving companies, it appears that in the neighborhood of three-fourths of the total grape crop in these producing areas is ordinarily used in private homes for fresh use and preserving.

Annual estimates of grape acreage in States other than California are not available and it is rather difficult to ascertain recent trends in the various States. Census figures on vine numbers, however, indicate that there was a decrease in bearing and non-bearing acreage from 1930 to 1935 in New York, the principal producing State, excluding California. Recent reports from New York indicate that this downward trend has not changed, and may continue unless grape prices improve materially. In Michigan and Ohio slight increases in bearing and non-bearing acreage occurred between 1930 and 1935, but recent reports from these States indicate that the trend may now be downward. This is indicated to be particularly true for Concord grapes, but more interest is developing in the better wine grapes in those areas. In Arkansas and Missouri there are indications that the present trend in grape acreage is slightly downward. Reports from all regions, excluding California, indicate few plantings in recent years.

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Table 1.- Grapes: Production by States, average 1927-36 and annual 1932-37

State and variety	Average: 1927-36	1932	1933	1934	1935	1936	1937	1938 ^{1/}	1938 as percent of age of 1937	1927-36 average
	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	Per- cent	Per- cent
Calif., all	2/1,929	1,926	1,660	1,700	2,194	1,714	2,454	2,322	94.6	120.4
Table	2/ 353	317	270	346	375	324	416	394	94.7	111.6
Wine	2/ 450	388	420	476	571	472	631	589	93.3	130.9
Raisin	2/1,126	1,221	970	878	1,248	918	1,407	1,339	95.2	118.9
All States excl. Calif.	268	305	279	258	294	202	323	178	55.1	66.4
N.Y.	74	77	75	61	81	49	89	59	66.3	79.7
Mich.	61	76	62	64	58	39	2/ 67	17	25.4	27.9
Ohio.	27	34	30	26	34	26	38	11	28.9	40.7
Pa.	22	23	18	19	25	16	26	17	65.4	77.3
Mo.	9	11	11	9	11	6	12	6	50.0	66.7
Ark.	10	14	13	10	8	7	13	5	38.5	50.0
Other States	65	70	70	69	77	59	78	63	80.8	96.9
U.S. total	1/2,197	2,231	1,939	1,958	2,488	1,916	2/2,777	2,500	90.0	113.8

1/ Indicated September 1, 1938. 2/ Includes some quantities not harvested because of market conditions.

Table 2.- Grapes: Season average price received by growers, selected States, 1930-37

States	1930	1931	1932	1933	1934	1935	1936	1937 ^{1/}
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
N.Y.	36	22	19	24	30	25	41	30
Mich.	33	28	16	20	25	20	36	23
Ohio	40	26	18	29	35	25	37	33
Pa.	43	22	16	25	27	23	40	31
Mo.	60	40	30	35	40	35	50	35
Ark.	50	40	26	26	25	30	35	28

1/ Preliminary.

Table 3.-Grapes, California: Utilization of harvested production of all varieties, 1927-38

Year	Harvested : production :	Dried : (fresh : basis) : 1/	Table : stock : 2/	Crushed : by : commercial : wineries :	Otherwise : used as : juice : stock : 2/ :	Canned
	Short tons	Short tons	Short tons	Short tons	Short tons	Short tons
1927	2,307,400	1,104,000	383,100	75,000	742,900	2,400
1928	2,213,000	1,008,000	405,400	103,000	695,000	1,600
1929	1,827,000	824,000	320,200	51,000	629,500	2,300
1930	1,748,000	731,000	316,400	74,100	625,200	1,300
1931	1,310,000	640,000	235,400	34,600	399,700	300
1932	1,772,000	1,012,000	230,400	99,000	430,100	500
1933	1,657,000	756,000	201,230	444,000	254,800	970
1934	1,700,000	679,200	263,400	530,000	225,200	2,200
1935	2,194,000	808,500	252,500	887,000	243,600	2,400
1936	1,714,000	728,000	289,800	494,000	199,000	3,200
1937	2,454,000	988,000	306,600	911,000	240,900	7,500
1938 3/ ...	2,336,000					

Data taken from reports of the California Cooperative Crop Reporting Service, except as otherwise designated.

1/ Excluding dried used for juice.

2/ Estimates made by the Giannini Foundation of Agricultural Economics, University of California, and based upon reports of the California Cooperative Crop Reporting Service and of the Federal-State Market News Service.

3/ Production as indicated on September 1, 1938.

Table 4.-Grapes, California: Season average price received by growers, 1919-37

Crop year	All : varieties :	Wine : varieties :	Table : varieties :	Raisin varieties		
	1	2	3	4	5 1/	6
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
1919	55	50	75	---	56	210
1920	65	75	75	40	63	235
1921	62	82	80	40	51	190
1922	41	65	60	30	28	105
1923	22	40	40	20	12	45
1924	33	63	40	20	19	70
1925	28	60	20	20	21	80
1926	25	45	25	20	19	70
1927	24	45	26	23	16	60
1928	16	25	26	10	11	40
1929	24	35	35	20	16	61
1930	16	20	2/ 21	2/ 13	16	59
1931	20	19	35	25	16	60
1932	12	12	16	19	10	39
1933	16	20	15	17	15	57
1934	17	15	23	20	17	64
1935	13	12	15	12	15	56
1936	19	17	25	19	17	70
1937 3/...	18	21	22	21	17	63

1/ Column 6 divided by 3.75. 2/ Includes returns from Control Board for unharvested grapes as well as returns from fresh raisin grapes actually marketed.

3/ Data for 1937 are preliminary.

Table 5.- Still Wine: Quantity removed from fermenters and production in commercial wineries by alcoholic classification, 1933-34 to 1936-37

Fiscal year	Wine	Production 2/		Total
	removed from	Under	Over	
	fermenters 1/	14 percent	14 percent	
	Gallons	Gallons	Gallons	Gallons
1933-34.....	77,778,000	21,657,000	17,572,000	39,229,000
1934-35.....	91,729,000	14,633,000	27,317,000	41,950,000
1935-36.....	170,876,000	14,481,000	55,344,000	69,825,000
1936-37.....	122,045,000	15,541,000	36,493,000	52,034,000
1937-38 3/.....	227,813,000	35,870,000	59,408,000	95,278,000

1/ Compiled from reports of the Commissioner of Internal Revenue.

2/ Calculated from figures on stocks and withdrawals as published in reports of the Commissioner of Internal Revenue.

3/ Preliminary.

Table 6.- Still Wine: Tax-paid withdrawals by alcoholic classification, 1933-34 to 1936-37

Fiscal year	Under 14	Over 14	Total
	percent alcohol	percent alcohol	
	Gallons	Gallons	Gallons
1933-34.....	5,053,269	9,472,419	14,525,688
1934-35.....	12,140,592	23,259,808	35,400,400
July-Dec.....	6,408,107	11,715,125	18,123,232
Jan.-June.....	5,732,485	11,544,683	17,277,168
1935-36.....	15,784,568	31,689,836	47,474,404
July-Dec.....	8,726,868	16,665,876	25,392,744
Jan.-June.....	7,057,700	15,023,960	22,081,660
1936-37.....	20,993,941	41,041,346	62,035,287
July-Dec.....	11,469,310	22,738,318	34,207,628
Jan.-June.....	9,524,631	18,303,028	27,827,659
1937-38.....	21,338,481	39,800,245	61,147,726
July-Dec.....	12,369,650	22,032,334	34,401,984
Jan.-June.....	8,968,831	17,776,911	26,745,742

Compiled from reports of the Commissioner of Internal Revenue.

Table 7.- Still wine: Total United States stocks on hand June 30, by alcoholic classification, 1934-38

June 30	:	Under	:	Over	:	Total
	:	14 percent	:	14 percent	:	
	:	Gallons	:	Gallons	:	Gallons
1934	:	30,504,000	:	19,664,000	:	50,168,000
1935	:	32,868,000	:	23,596,000	:	56,464,000
1936	:	31,449,000	:	47,096,000	:	78,545,000
1937	:	25,742,000	:	42,369,000	:	68,111,000
1938	:	40,152,000	:	61,866,000	:	102,018,000

Compiled from reports of the Bureau of Internal Revenue, U. S. Treasury Department.

Table 8.- Shipments of California raisins by countries and f.o.b. prices of Thompsons

		Domestic				Exports				Calif-
		Total	United	United	Canada	Total	In-	Ex-	United	Other
Year	Grand	States	States	States	Canada	In-	Ex-	United	Other	f.o.b.
beginning	total	and				Canada	Canada	Kingdom	coun-	rail
Sept. 1		Canada							tries	price
										per
										lb., 1/
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Cents
1 1921	155,000	139,700	125,200	14,500	29,800	15,300	11,000	4,300	14.0	
1922	190,000	153,500	135,000	18,500	55,000	36,500	20,400	16,100	10.5	
1923	195,000	168,400	149,400	19,000	45,600	26,600	8,300	18,300	7.3	
1924	220,000	187,600	167,600	20,000	52,400	32,400	14,800	17,600	7.4	
1925	240,000	185,300	168,000	17,300	72,000	54,700	23,700	31,000	7.3	
1926	245,000	182,000	162,300	20,100	82,700	62,600	28,500	34,100	6.8	
1927	285,000	199,600	178,000	21,600	107,000	85,400	37,700	47,700	5.6	
1928	290,000	193,400	171,000	22,400	119,000	96,600	37,500	59,100	4.4	
1929	215,000	162,900	148,600	14,300	66,400	52,100	19,100	33,000	4.9	
1930	215,000	160,100	148,200	11,900	66,800	54,900	21,700	33,200	4.7	
1931	185,000	131,000	124,100	6,900	60,900	54,000	24,100	29,900	5.1	
1932	220,000	160,700	155,300	5,400	64,700	59,300	26,500	32,800	3.3	
1933	2/190,000	143,300	137,500	5,800	52,500	46,700	17,800	28,900	4.2	
1934	190,000	145,800	141,800	4,000	48,200	44,200	18,800	25,400	4.3	
1935	2/215,000	158,500	154,100	4,400	60,900	56,500	28,500	28,000	4.1	
1936	200,000	144,800	140,900	3,900	59,100	55,200	26,000	29,200	4.8	
1937	3/215,000	3/141,200	3/138,300	2,900	76,700	73,800	32,000	41,800	4.2	

1/ Data 1921-23 are for all raisins; data for 1924 and following are for Thompson seedless only. 2/ In addition to sales to the regular trade as given, it is roughly estimated that about 15,000 tons of muscat raisins were utilized by California wineries for wine and brandy during the year beginning September 1, 1933, and about 5,000 tons of offgrade raisins went into byproducts in 1935.

3/ Preliminary. Includes 15,000 tons bought and shipped for relief purposes by the Federal Surplus Commodities Corporation. In addition the Corporation purchased 10,000 tons which were shipped after September 1, 1938, i.e. in the 1938 season. Compiled by S.W. Shear, Giannini Foundation of Agricultural Economics, University of California. Also data in Table 4.

Release Date
November 7, P.M.

THE STRAWBERRY OUTLOOK FOR 1939

Reports from growers in October indicate that the acreage of strawberries for picking in 1939 will be about 197,000 acres. This acreage, the largest since 1929, is 9 percent above the 1938 harvested acreage and about 7 percent greater than the 1927-36 average, but it is only slightly more than the harvested acreages of 1933-34. The 1939 strawberry crop will probably be marketed under somewhat more favorable demand conditions than was the 1938 crop. Yields equal to or above average on the larger acreage may more than offset the improvement in consumer demand.

Acreage increases in 1939 over those of 1938 are indicated for the late, intermediate, and second early States. In the early States, where marketing difficulties have been most pronounced in recent years, some reduction in acreage is expected. Strawberry acreage during the past decade has increased markedly in the late States. In the intermediate States also the trend has been upward, but at a more moderate rate. In the early States the trend in acreage has been downward, while in the second early States there has been no pronounced trend.

Strawberry yields vary from year to year, largely because of weather conditions. If the yield per acre in 1939 should be equal to the 10-year average, the production from the indicated acreage would be about 300 million quarts. A production of this size would exceed that of 1938 and the 1927-36 average, by about 9 percent. Weather conditions in the summer of 1938 were above average and buds in the fall of 1938 appear to be in generally good condition. Yields and production in 1939, however, will depend to an appreciable extent on weather conditions in the spring of 1939.

Both acreage and production of strawberries for the country as a whole in 1938 were about the same as the 10-year average. As the yield per acre was substantially less than the high yield of 1937, production was slightly smaller notwithstanding a 15 percent larger acreage.

Prices to growers in the second early States and the intermediate States in 1938 were higher than average and higher than in 1937. The reverse was true in the late States and early States.

Prices to growers in the early States have averaged substantially higher than in the other groups of States. Costs of production in the early States, however, are much higher than elsewhere.

Regional Prospects

In the early States (Alabama, Florida, Louisiana, Mississippi, and Texas) a 4 percent decrease in acreage is indicated for 1939. Reduction of 3,000 acres in the Louisiana acreage, and an increase of 1,500 acres in Florida

are expected. Acreage in other States shows little change. With average yields, production in these early States would be somewhat higher than in 1938 when yields were below average.

In the second early States (Arkansas, California (southern district) Georgia, North Carolina, South Carolina, Tennessee, and Virginia,) October reports indicate a 15 percent increase from the 1938 acreage. Practically all of this increase is expected in Arkansas and Tennessee where acreages have been relatively small since the 1934 drought. The prospective 1939 acreage in these States is the largest since 1934 but it is slightly below the 1927-36 average.

In the intermediate States (California (exclusive southern district) Delaware, Illinois, Kansas, Kentucky, Maryland, Missouri, New Jersey and Oklahoma,) a 13 percent increase in acreage is indicated for 1939. Most of the increase is expected in Missouri where acreages in recent years have been below average because of droughts. Although the intended 1939 acreage is the largest in a decade, it is only 6 percent above the average of 1927-36.

In the late States (Indiana, Iowa, Michigan, New York, Ohio, Oregon, Pennsylvania, Utah, Washington, and Wisconsin), where the acreage in strawberries has been increasing in recent years, the indicated 1939 acreage is 10 percent above the record harvested acreage of 1938 and 29 percent above the 1927-36 average. Acreage increases are reported in all States except Utah but are most pronounced in Wisconsin, Michigan, Indiana, Oregon, and Washington.

The bulk of the production in the late States is sold for fresh consumption largely in local and nearby markets. In Oregon and Washington, however, a substantial part of the production is sold to processing plants for cold packing, quick freezing and for canning. Total output of quick freeze and cold pack strawberries in 1937, according to trade reports, was the highest in recent years and was materially higher than consumption. As a result, stocks on April 1, 1938, were greatly increased over a year earlier. Although output of quick freeze and cold pack strawberries from the 1938 crop probably was substantially lower than the 1937 output, stocks of approximately 43 million pounds on October 1, 1938 were about 23 percent greater than a year earlier because of the large carry-over of the 1937 pack. Output of quick freeze and cold pack strawberries in the past has been largely confined to the Pacific Northwest but appears to be increasing somewhat in other areas because of the increased use of the quick freeze process. Quick freeze strawberries are largely packed in small containers and sold for home consumption through retail outlets. Cold pack strawberries are packed principally in large containers and are sold largely to preservers and for use in the ice cream trade.

Strawberry Outlook

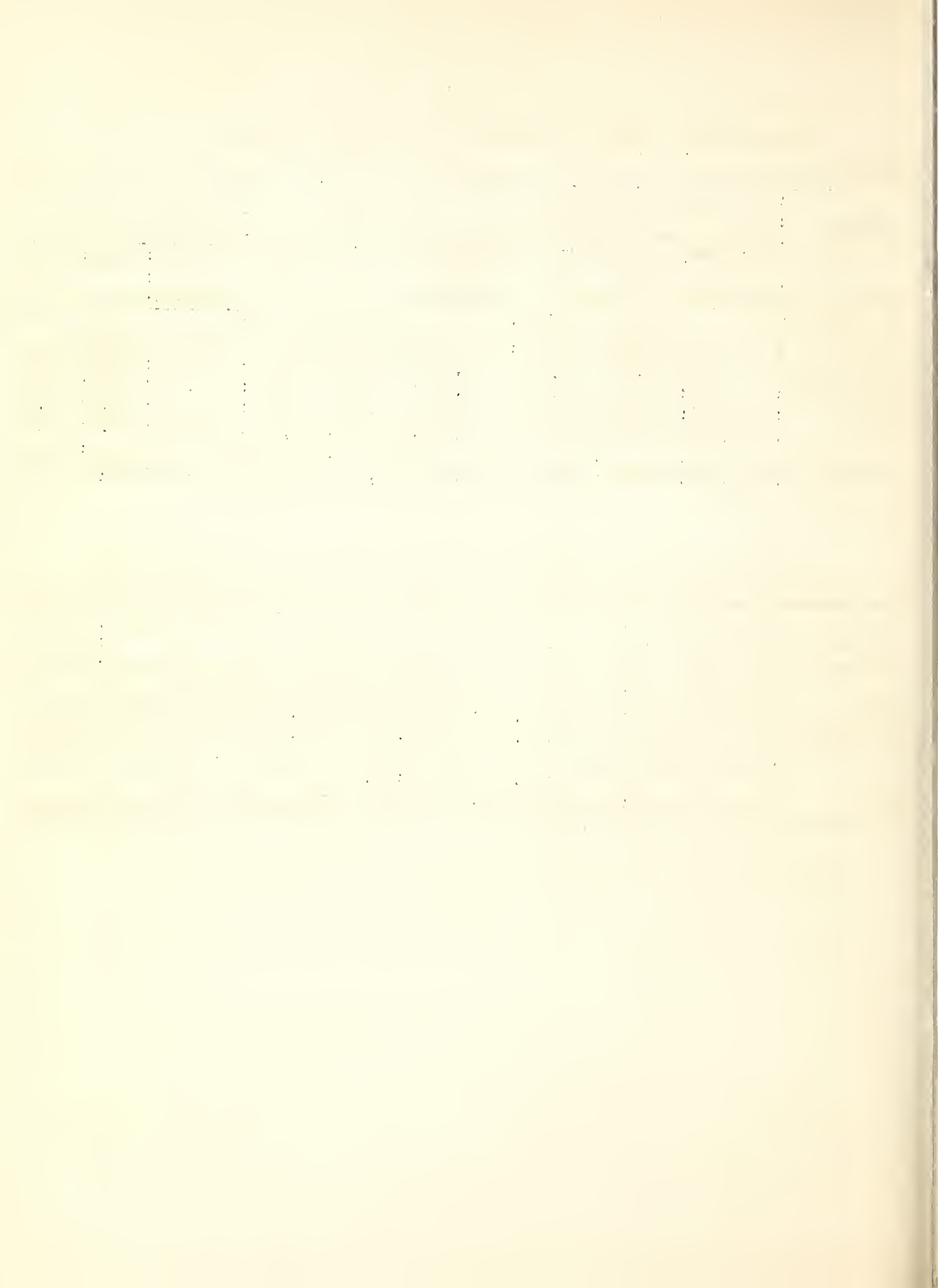
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Strawberries: Acreage, production, and prices to growers

Group	Acreage harvested			Production			Average prices to growers		
	10-year:			10-year:			10-year:		
	average:	1937	1938	average:	1937	1938	average:	1937	1938
	1927-36:			1927-36:			1927-36:		
	Acres			1,000 Quarts			Cents per quart		
Early	35,510	31,850	35,110	53,472	57,312	48,192	17.5	15.8	15.0
Second-early	54,650	39,750	46,650	78,168	64,056	66,240	10.0	10.3	10.6
Intermediate	47,870	37,600	45,200	70,416	61,008	70,944	10.6	11.4	12.0
Late	45,860	48,100	53,900	73,680	100,488	90,816	11.0	11.9	10.2
Total	183,390	157,300	180,860	275,736	282,864	276,192	11.8	12.2	11.5

Acreage harvested 1930-1938 and acreage intended for picking in 1939

Group	1930	1931	1932	1933	1934	1935	1936	1937	1938	Intend- ed for 1939
Early	39,000	35,920	39,220	38,360	35,880	33,550	29,300	31,850	35,110	33,760
Second-early	50,070	38,070	55,570	64,830	65,870	44,450	45,830	39,750	46,650	53,550
Intermediate	41,100	34,150	42,400	46,800	47,150	39,800	43,050	37,600	45,200	50,880
Late	45,040	45,680	52,620	45,260	47,280	45,080	47,400	48,100	53,900	59,200
Total	175,210	153,820	189,810	195,250	196,180	162,880	165,580	157,300	180,860	197,390



THE OUTLOOK FOR TREE NUTS FOR 1939

Summary

The basic trend in production of tree nuts is expected to continue moderately upward during the next few years. Wild and seedling pecans are the only tree-nut crop of which the production is not expected to increase.

Combined 1938 production in the United States of walnuts, almonds, pecans, and filberts is expected to amount to approximately 83,900 tons. This is 30 percent under the 1937 total crop, and 6 percent under the average for the 5 years 1932-36.

Prices to growers for tree nuts fell to low levels in 1930 and 1931. Since then, prices of walnuts and improved pecans have declined slightly further. The prices of wild and seedling pecans have varied widely, but the average level remains low. Almond prices, on the other hand, were high in 1935 and 1936, and even in 1937, year of a bumper crop, they remained well above their depression lows.

In view of the prospect for further increases in the United States production of tree nuts, it does not seem probable that their average prices to growers during the next few years will average much, if any, above their present levels--assuming that no radical change in other factors will occur.

According to a preliminary estimate, total apparent per-capita consumption of tree nuts in the United States was equal in 1937-38 (September to October) to the average of the two preceding seasons, which was 1.17 pounds (shelled basis). In 1937-38, nuts produced in the United States made up 57 percent of the total quantity apparently consumed, as compared with an average of 47 percent for the two preceding seasons.

Expected 1938 production in the United States of the various nuts reported is as follows: English walnuts, 45,200 tons, down 24 percent from 1937; almonds, 12,100 tons, down 40 percent from 1937; improved varieties of pecans, 9,220 tons, down 20 percent from 1937; wild and seedling pecans, 15,100 tons, down 44 percent from 1937; all pecans combined, 24,400 tons, down 36 percent from 1937; and filberts, 2,200 tons, equal to the 1937 production.

Survey of Important Trends in the General Situation

Low prices to growers for walnuts and improved pecans.— Prices to growers for all tree nuts produced in the United States dropped very rapidly in 1931 and 1932. There has been no recovery from the depression level in the case of walnuts and the improved varieties of pecans. Almond prices, however, recovered very sharply in 1935 and 1936, and while they dropped back in 1937, they did not reach the depression level. It is

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noteworthy that the high prices for almonds occurred during the last 2 years of a series of constantly diminishing crops, while the low improved pecan and walnut prices have been accompanied by record crops.

Production and prices to growers of tree nuts in the United States, before and after the depression

	Walnuts		Improved Pecans		Seedling Pecans		Almonds	
	Prod.	Price to growers	Prod.	Price to growers	Prod.	Price to growers	Prod.	Price to growers
	1000: tons	cts. per pound	1000: tons	cts. per pound	1000: tons	cts. per pound	1000: tons	cts. per pound
Average 1925-29	35.0	20.0	6.7	33.4	23.8	13.6	10.8	18.4
Average 1933-37	47.3	10.1	9.5	13.3	24.4	7.5	12.1	13.2
% of increase (+) or decrease (-)	+35	-50	+42	-60	+2.5	-45	+12	-28

1937 prices to growers low.- With higher production, the average price to growers for each kind of tree nut was lower in 1937 than in 1936. Except in the case of almonds, prices were also below the corresponding averages for 1931-35.

1937 prices to growers for tree nuts produced in the United States, compared with previous years

Kind of nut	Average 1931-35	1936	1937
	cts. per lb.	cts. per lb.	cts. per lb.
Walnuts	10.3	10.8	8.8
Almonds	9.1	20.1	13.7
Filberts	12.1	13.5	10.7
Pecans, improved	13.6	14.7	11.1
Pecans, wild and seedling	6.4	9.6	5.8

Production to increase moderately.- The combined production of all tree nuts in the United States will probably continue to increase moderately during the next 5 years. The basic trend is still upward for

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walnuts and for improved varieties of pecans--strongly so in the case of walnuts--and recent plantings of almonds will probably result in a moderate increase in total productive capacity. The production of filberts in the United States is a young and rapidly growing industry. Oregon production has increased from 60 tons in 1927 to an expected 2,200 tons in 1938. A continued rapid increase in production may be expected.

1938 U. S. nut production, compared with previous years

Kind of nut	Expected:	1937	Average	Expected as a percentage	
	1938		1932-36	of 1937	of average
	1000 tons	1000 tons	1000 tons	percent	percent
Walnuts	45.2	59.1	45.2	76	100
Pecans	24.4	38.4	32.1	64	76
Almonds	12.1	20.0	10.9	60	111
Filberts	2.2	2.2	1.1	100	200
Combined production ...	83.9	119.7	89.3	70	94

Total imports lower.— In spite of the heavy imports of cashews in recent years, and increases in imports of Brazil nuts and some of the less important nuts, total imports of tree-nuts have decreased substantially.

Imports of tree-nuts into the United States, before
and after the depression^{1/}

Kind of nut	5-yr. average:	5-yr. average:	Percentage of
	1925-26 to	1933-34 to	
	1929-30	1937-38	increase (+) or decrease (-)
	1000 lbs.	1000 lbs.	percent
Cashews	1,818	21,633	+1089.9
Brazil nuts	13,777	16,677	+ 21.0
Pignolias and Pistachios ..	1,384	2,010	+ 45.2
Chestnuts	16,476	14,093	- 14.5
Walnuts	25,645	5,038	- 80.4
Almonds	18,952	6,249	- 67.0
Filberts	10,079	3,208	- 68.2
Pecans	262	211	- 19.5
TOTAL	88,393	69,119	- 21.8

^{1/} Imports for consumption. Nuts imported in shell have been converted to a shelled basis in making up this table.

Production and imports.- Domestic production and imports are compared over a 17-year period in the following table. In the early 1920's, imports were roughly two and a half times as great as domestic production, but that production has increased and imports have decreased to the point where production now exceeds imports.

Trends in United States tree-nut production and imports

Crop year (Oct.-Sept.)	Production		Imports for consumption (shelled basis)
	Unshelled	Shelled	
	basis	basis	
	1,000 tons	1,000 tons	1,000 tons
Average, 1922-23 to 1924-25	54.2	21.0	52.3
Average, 1925-26 to 1929-30	76.4	29.7	44.2
Average, 1930-31 to 1934-35	83.1	32.3	32.1
Average, 1935-36 to 1937-38	103.7	40.9	37.4 ^{1/}

^{1/} Preliminary.

Relative importance of the different nuts in consumption.- With respect to volume of consumption, walnuts are by far the most important tree nut, with pecans and cashews competing closely for second place, and Brazil nuts, chestnuts, and almonds in fourth, fifth, and sixth place, respectively, but consumed in practically equal quantities. Cashew nuts were practically unknown to United States consumers before 1928. They have steadily grown in popularity since that time. It is estimated that United States consumers ate approximately one-fifth of a pound of cashew nuts per person during each of the years 1936-37 and 1937-38.

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Apparent consumption of tree-nuts in the United States
(Average for the three seasons Oct. 1935 - Sept. 1938)^{1/}
(Shelled basis)

Kind of nut	Consumption				Percent of	
	of nuts produced in the U. S.	of import- ed nuts	Total	Per capita	total con- sumption of	
	1000 tons	1000 tons	1000 tons	pounds	all tree-nuts	percent
Walnuts	19.5	2.3	21.8	.34		28.9
Pecans	14.0	^{2/}	14.0	.22		18.6
Cashew nuts. :	--	12.2	12.2	.19		16.2
Brazil nuts. :	--	8.1	8.1	.12		10.8
Chestnuts .. :	--	7.9	7.9	.12		10.5
Almonds :	3.7	4.1	7.8	.12		10.3
Filberts ... :	.8	1.6	2.4	.04		3.2
Pistachios . :	--	1.0	1.0	.02		1.3
Pignolias .. :	--	.2	.2	^{3/}		.2
Total	38.0	37.4	75.4	1.17		100.0

^{1/} 1937-38 preliminary.

^{2/} Less than .05.

^{3/} Less than .005.

The Outlook for English (Persian) Walnuts

A crop of approximately 45,200 tons of English (Persian) walnuts is expected in 1938. This is 24 percent under the record 1937 crop, but just equal to the 1932-36 average.

The basic trend of United States walnut production continues strongly upward. A large percentage of the trees are still young and have not yet reached full bearing capacity. Bearing acreage in California is expected to increase during the next several years, although by 1942 the rate of increase will probably be very small. New plantings have been light since 1931 and in the last 2 or 3 years have been limited to replacements. In Oregon, a severe freeze in the fall of 1935 and a lighter one in the fall of 1936 caused considerable damage to the productive capacity of the walnut groves. However, the 1938 crop is expected to equal the record crop of 1935, and under normal weather conditions Oregon production will resume its upward trend. It is not unlikely that in the next 5 years a total United States production in excess of 50,000 tons will be usual rather than exceptional.

Prices to growers for walnuts dropped to a low level in 1931 and have remained there.

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Price to growers for English walnuts Average

1923-26	1927-30	1931-34	1935-37
cents per lb.	cents per lb.	cents per lb.	cents per lb.
22.3	18.5	10.4	10.0

Prices to growers for walnuts were formerly higher than prices to growers for almonds, but in the last 3 years the relationship has been reversed and the price to growers for almonds has averaged 16.0 cents per pound as against 10.0 cents per pound for walnuts. As continued heavy production both of walnuts and of improved varieties of pecans is expected, it does not appear probable that in the next few years, at least, walnut prices will recover any large fraction of the ground they lost in 1931.

Since October 1933 the walnut industry has been operating under a marketing agreement. Protection of the domestic unshelled-walnut market has been the chief aim of the control program instituted under the agreement. It has been accomplished by diverting part of the marketable crop into the export and domestic shelled markets, sales in these markets being made at prices lower than those prevailing in the protected market. In connection with the marketing of the 1935, 1936, and 1937 crops under the control program, the Federal Government made payments to the industry of approximately 5 cents a pound on the quantity diverted from the domestic unshelled market. Under the control program the United States has become an exporter of unshelled walnuts to the quantity of 5,000 or 6,000 tons annually.

The Outlook for Filberts

The 1938 Oregon crop of filberts is expected to amount to approximately 2,200 tons, or nearly as much as the record 1937 crop of 2,230 tons. Filbert production has been increasing very rapidly in Oregon, as the following table indicates.

Production of filberts in Oregon

	1927-29	1930-32	1933-35	1936-38
Average annual production (tons)	153	360	1,060	2,093

Production of filberts is a new industry in Oregon, and official estimates of production were not made before 1927.

Oregon and Washington are the only States in which filberts are grown on a commercial scale. According to the Census of 1930, the two States combined contained 98 percent of the filbert trees in the country. A detailed survey made in 1934 and 1935 showed approximately 850,000 trees in 18 Oregon counties and approximately 183,000 trees in 13 Washington counties. All the important producing areas were covered by the survey.

It is clear from the survey that plantings already made by 1935 will result in a continued rapid increase in production up to 1945, provided no development now unforeseen occurs, such as unusual weather, the appearance of a serious disease or pest, or pulling of trees already planted. Of the trees standing in 1935, 97 percent had been planted after 1919, and 76 percent, after 1926; 47 percent had been planted after 1930. No survey has been made since 1935, but it is reported that plantings continue at a fairly rapid, though somewhat reduced, rate. Judging from the information made available by the survey, the Oregon filbert crops of 1939 and 1940 are likely to be substantially above the level of the past two years. It is within the realm of possibility that by 1945 a crop of 5,000 tons or more may be produced in Oregon.

Formerly, practically all of the filberts consumed in the United States were imported from the countries surrounding the Mediterranean. During the 5-year period from October 1919 through September 1924, United States consumption averaged approximately 0.24 pound per capita annually. Imports have steadily fallen off since then, however, and even though domestic production has increased, consumption is now in the neighborhood of 0.08 pound per capita. In 1937-38 (October through September), according to a preliminary estimate, imports were 2,269 tons, or 0.035 pound per capita, while the 1937 domestic crop of 2,230 tons represents 0.034 pound per capita. (All figures are on an in-the-shell basis.)

The season average prices to growers for Oregon filberts, reported each year since 1929, have fluctuated between \$200 and \$340 per ton. The average for the crops of 1929-36 was \$265 per ton. The 1937 crop brought \$215 per ton.

The Outlook for Pecans

The 1938 production of improved varieties of pecans is expected to amount to approximately 9,220 tons. This is 20 percent below the 1937 production but 14 percent above the 1932-36 average. On the other hand, 1938 production of wild and seedling pecans is expected to fall below both the 1937 figure and the 1932-36 average, by 44 percent and 37 percent respectively, the expected 1938 production being approximately 15,100 tons.

About 90 percent of the improved varieties of pecans are produced in the South Atlantic and East Gulf Coast States. The bulk of the pecans of this type are sold to the ultimate consumer in the unshelled form. About 75 percent of the wild and seedling crop is produced in Texas and Oklahoma. Pecans of this type are shelled for the most part. Large quantities of them are used by confectioners and bakers.

Pecan production fluctuates very widely from year to year, and for this reason it is difficult to determine whether there is any significant trend in production. However, total production of pecans in the 5 years 1933-37 averaged about 20 percent higher than in the 5 years, 1923-27. There is clearly a marked upward trend in the production of improved varieties. During the last 5 years, 1933-37, production of the improved varieties averaged 66 percent higher than during the 5 years, 1923-27.

Pecan production, 1923-37

	Average		
	1923-27	1928-32	1933-37
Total production (tons)	28,100	31,500	33,800
Production of improved varieties (tons)	5,700	7,100	9,500
Production of wild and seedling pecans (tons)	22,400	24,400	24,400
Production of improved as percent of total production .	20	23	28

No survey of pecan-tree numbers and ages has been made since 1929. What information is available points to a continuation of the upward trend in the production of improved varieties, with perhaps a slight upward trend in total production. It is known that in the States east of the Mississippi River there have been both considerable neglect of orchards and thinning out of those orchards that are receiving good care. An increasingly greater proportion of the crop will probably be produced by the more efficient growers. In Texas and Oklahoma, a great deal of top-working of wild and seedling trees with improved varieties has been carried on, some new groves of improved varieties have been planted, and there has been extensive thinning of native stands to increase their productivity.

Low prices for improved pecans have ruled since 1930. The price to growers varied between 45 cents and 27 cents a pound between 1922 and 1930; since 1930 it has varied between 16 cents and 11 cents. Prices for seedlings have also been low, but not so low in relation to their former level as prices for improved varieties.

Prices to growers for pecans

	Average		
	1927-29	1931-33	1934-37
	cents per lb.	cents per lb.	cents per lb.
Improved varieties	32.2	13.4	12.9
Wild and seedling sorts	12.9	5.4	7.7

In view of the prospects for continued high production of both walnuts and improved pecans, it does not seem probable that the next few years, at least, will see any substantial recovery in the prices of improved varieties of pecans.

During the 1935-36 marketing season the Federal Government undertook to aid in developing an export market for unshelled pecans by making payments to exporters on the volume of unshelled pecans they sold abroad. This program has been continued, and during the three seasons of its operation payments averaging a little over 5 cents a pound have been made on a total of approximately 3,160 tons. In the 1937-38 marketing season a similar plan was instituted for shelled pecans, and payments of about 12 cents a pound were made on exports of approximately 300 tons of meats.

The Outlook for Almonds

The 1937 California crop of almonds turned out to be by far the largest in the history of the industry. It amounted to 20,000 tons, as compared to the 1926 crop of 16,000 tons, the largest previous crop. A 1938 crop of approximately 12,100 tons is expected. This is 11 percent above the average production for the five years, 1932-36.

The size of the almond crop varies greatly from year to year because it is very sensitive to weather conditions. For this reason it is difficult to ascertain whether or not there has been any trend in production over the last 12 years or so. The basic trend in productive capacity, however, appears to have been slightly upward. Bearing acreage has increased slightly, and the proportion of trees of full-bearing age has increased substantially.

A protracted period of high water during the winter of 1938 killed some of the almond trees in the Sacramento Valley and injured others. Although the full extent of the injury has not been determined, it was sufficient to offset a considerable part of the increase in bearing acreage that would otherwise have been expected in 1938. Over the next 5 years an increase in bearing acreage is expected. Plantings were rather heavy in each of the past 4 years. Most of the expansion will take place in counties located in the Sacramento and San Joaquin Valleys, where growing conditions for almonds are relatively favorable. An average production in the neighborhood of 13,000 tons seems probable for the 5 years, 1938-42, given average growing conditions.

Prices to growers for almonds fell sharply in 1930 and remained low for 4 more years. However, in contrast to the prices to growers for other tree nuts produced in the United States, they have now recovered to a substantially higher level. Since 1934 the price to growers for almonds has been higher than the price to growers for any other major nut crop produced in the United States.

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Price to growers for almonds

	1925-29	1930-34	1935-37
Average price for almonds (cents per lb.)	18.4	9.1	16.0
Average price for almonds as percent of average price for: walnuts	92	73	160
Average price for almonds as percent of average price for: improved pecans	55	54	125

Formerly almonds were consumed in the United States in greater quantities than any other tree nut except walnuts. During the years 1919-20 to 1923-24 (October to September) apparent consumption averaged 0.26 pound per capita annually (shelled basis). But consumption of almonds has steadily fallen until for the period 1933-34 to 1937-38 the average apparent consumption was only 0.11 pound per capita annually (shelled basis). Taking the average of the last 3 years, United States consumers have eaten fewer pounds of almonds than they have of Brazil nuts, cashew nuts, chestnuts, pecans, or walnuts. The downward trend in almond consumption has persisted over a long period, and it does not seem probable that almond consumption will increase materially in the near future. It may be pointed out, however, that almond consumption in the United States has been sufficiently high to absorb all of our domestic production, plus a varying amount of imports. For example, the annual apparent U. S. consumption in the last 3 years, 1935-36 to 1937-38 (October to September) averaged approximately 26,000 tons (unshelled) as compared with average domestic production the same three years of 12,300 tons and with the bumper 1937 California crop of 20,000 tons.











